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PART I.

ORIGINAL COMMUNICATIONS.

I.

Observations on the Properties and Uses of Cathartics. By Anthony Carlisle, Esq. F. R. S. Professor of Anatomy to the Royal Academy, London, &c. &c.

(*Continued from page* 187.)

Saline Cathartics operate by exciting watery discharges. When neutral salts are given in full doses with a small quantity of fluid, they seem to excite the intestinal exhalents, and induce a flow of serous liquid, which is then abstracted from the mass of circulating blood. When neutral salts are given with copious dilution, they seem to wash out the intestinal tube without diminishing the blood, or impairing the bodily strength. Perhaps the weaker solutions of cathartic salts are obnoxious to absorption, and hence the whole volume of fluid drank at the time passes rapidly through the intestines. Half an ounce of Epsom salts dissolved in a pint of water, generally operates sooner and more copiously than an ounce of the same kind of salts dissolved in a quarter of a pint of water. Besides, the highly diluted dose of salts does not abstract any part of the circulating nutriment, and if taken before breakfast it does not carry off the digested aliment, whilst full doses of neutral salts, unaccompanied by copious dilution, prove exhausting and injurious to debilitated persons. In cases of emaciation connected with habitual foulness of the bowels, these diluted doses of neutral salts may be often repeated and continued for many weeks with beneficial effect. In this manner the Chel-

tenham and other purgative mineral waters operate, and the general testimony in favour of them proves their usefulness. A quarter of an ounce of Epsom salts may be taken in a full pint of tepid water every second or third morning. In some languid cases, chalybeates may be added with advantage; as for example, six grains of ammoniate of iron in each dose of salts. In some febrile habits, antimony may be beneficially united to the salts; viz. either fifteen drops of antimonial wine, or four grains of antimonial powder may be given with each alternate dose, and both of these metallic salts increase the purgative effect.

It is remarkable that the greatest number of the compounds, formed of vegetable alkali, mineral alkali, or the earth of magnesia, with the perfect acid, are purgative, whilst ammonia and the other earths formed into neutral salts, have not the same property. Epsom salts are more to be relied upon than the other neutral salts, because if decomposed in transitu, still the earthy basis is purgative. It is also curious that the saline combinations of mercury are purgative, whilst those of the other metals are commonly the reverse.

The Cathartic neutral salts are always improper when the large intestines especially are foul, and in all acute disorders affecting corpulent persons they should be avoided, until the sacculated bowels are previously well cleansed by such stimulating Cathartics as jalap or calomel. In cases of great laxity of fibres, in dropsical diseases, and whenever the digestive organs are impaired without an obvious connection with distempered bowels, the diluted neutral salts are improper.

Castor oil is commonly certain in its operation, and it very seldom induces an exhausting Catharsis. Perhaps this viscid oil, containing an acrimonious resin, is obnoxious to absorption throughout the whole of the alimentary passages. I am informed that a factitious castor oil is generally vended, which consists of scammony and an expressed vegetable oil. In the dose of an ounce it seems to force the whole contents of the intestines, by exciting encreased peristaltic actions; and since the oil passes through the body unchanged, its stimulating contact is perhaps more extensive and more certain than that of purgatives liable to absorption. Castor oil acts more efficaciously when it is taken in its ordinary state, its activity being diminished by mixing it into an emulsion; it is peculiarly adapted to debilitated conditions, where purgatives less certain in the degree of their action might prove dangerous. The use of castor oil seldom leaves costive or relaxed bowels. It is improper in cases of alimentary acidity, in erysipelas, and in the ordinary examples of hæmorrhoids.

Jalap is one of the most powerful Cathartics, and it is espe-

cially adapted to cleansing the lower bowels; it seems to act by stimulating the peristaltic motions; it operates most effectually when given in powder; its nauseous taste is much concealed by coffee. It is seldom given alone; but when so administered, the dose may be from 30 to 40 grains. Jalap is usually administered in reiterated doses, and mixed with infusion of senna and neutral salts: in all acute diseases, where a complete clearing of the bowels is the leading indication, jalap is most to be relied on. It is, however, an exhausting Cathartic, and it seems to debilitate the digestive power of the stomach.

Aloes and colocynth appear to resemble the bile in their physical properties, and perhaps they act upon the intestines very like that natural stimulus. It must, however, be noted, that these drugs enter by the stomach, and have to pass through it, whilst the bile is directed to fall into the intestinal tube beyond the stomach. It has appeared in my experience, that all the hot essential oils added to aloes, or extract of colocynth, both impede their operation, and prove otherwise deleterious. I doubt much the propriety of exhibiting these drugs in a fluid state, since they always derange the stomach, and often produce head-ache. Given in the form of a hard and dry pill containing five grains, when the stomach is moderately distended, and a grain of ipecacuanha given about ten minutes afterwards; their combined effect is usually that of protruding the chyme into the intestines, and consequently of removing oppression. It should be known that solutions of gum-resins in the stomach are effected much slower than is ordinarily supposed, and which anatomical researches, after sudden deaths, have often shown. In all cases of obstruction of the passage of the bile into the intestines, these drugs are suitable; but in their passage through the stomach they derange it like bilious regurgitations, and hence it is desirable to hasten their protrusion into the intestines.

Scammony, gamboge, and elaterium, seem to stimulate the muscular, and perhaps the nervous parts of the bowels; but they are seldom given singly, as their effects are precarious.

Perhaps the old-fashioned notions about hydragogues and cholagogues, &c. &c. are more compatible with the physical evidences of medicine, than the modern occult doctrines of pathology; and we may reasonably hope that some of our brethren, who have been from early life inducted into the observance and consideration of medical phenomena, will investigate this subject, and prefer the conscientious discharge of their great duties, the future improvement and the honour of their Art, to the vanities and tricks which gain popularity, or the sordid accumulation of undeserved wealth.

(To be continued.)

II.

A General View of the Diseases usually occurring in Boys during the Period between Infancy and Puberty, exhibited in a Synoptical Table, and accompanied with Practical Observations.

By Henry Field, Member of the Society of Apothecaries, London, and Apothecary to Christ's Hospital.

A knowledge of those diseases, which may be expected to occur at particular ages and periods of life, must be universally admitted to be greatly conducive to the improvement of Medical Science. It is essential, however, to its utility, that the scale upon which this knowledge is founded, should be sufficiently large, and also carried on for a period extensive enough to form, what may be termed, an average statement of such diseases. The conclusions and inferences to be drawn from such statements will, by this means, be protected from the fallacy which might otherwise arise from the influence of particular years or seasons, whether such may be more healthly or more unhealthy than what usually occur.

The diseases of children have been frequently treated of by medical writers, and several valuable works on these diseases are to be met with in the libraries of professional men; but the principal objects of such writings have been confined to very early infancy, or the years immediately succeeding it.

It appears to me, that a statement of such diseases as have been found to occur in children of a somewhat more advanced age, commencing after the conclusion of infancy, and ending at the approach of puberty, though not exclusively confined to such children, might be an acceptable addition to the stock of medical facts, of which the public are already possessed: and more particularly, as I am not aware that this period of life has hitherto been the subject of that attention which its importance justly demands.

I should not have presumed to have obtruded myself to notice on such an occasion, had I not been placed in a situation which has afforded me an opportunity of acquiring information on this subject, upon a scale of unusual magnitude, much superior to what can fall to the lot of medical practitioners in general. Of the events occurring in this situation, I flatter myself that I have not been an inattentive observer.

Having the honour to hold the office of Apothecary to the Royal Foundation of Christ's Hospital, I have constantly under my care the health of between six and seven hundred boys; for whose use, in case of disease or accident, an Infirmary, with suitable attendants, is provided. The diseases, properly considered as medical, are intrusted to my management, with the advantage of having the assistance of an able and experienced Physician, when any circumstances of peculiar

difficulty or danger arise. The Surgical cases are entirely under the care of a Surgeon of superior ability and deserved eminence.

Christ's Hospital, although placed nearly in the centre of London, may be considered as occupying a very healthy situation. It stands adjoining to the highest spot of ground in the City; and comprises, within its boundaries, an area of several acres of land, a considerable part of which is allotted as a place for the play and recreation of the boys, which renders the buildings sufficiently open, and thus admits a free circulation of air. Several of the wards or dormitories are well adapted for the purposes to which they are applied, while others of them are not so lofty as might be wished. This arises from the buildings not having been originally erected for their present uses, but accommodated to them, from time to time, as necessity required, or circumstances would allow.

The hall, or eating room, is spacious and convenient; as are likewise the several school rooms.

The boys are not admitted under the age of seven years, nor permitted to remain in the school longer than that of fifteen; with the exception of a few of them, who are intended either for the University, or for the Sea Service. As much the greater part of the younger boys, at their first admission, are sent to the School at Hertford, where they continue three or four years, and are then brought up to London; a very large proportion of those in London may be considered as being between the ages of eleven and fifteen years.

Their diet is plain and simple; the allowance of bread is very ample and of the best quality; that of animal food is in quantity moderate, and of culinary vegetables but small: but the great quantity of bread allotted to them, renders the latter less necessary, and thus, without material inconvenience, they are dispensed with.

Their clothing is sufficiently warm. They generally go about in the open air with their heads uncovered, the small round caps, which are part of their costume, not being well adapted to that purpose; but it does not appear that this is attended with effects prejudicial to their health. Perhaps the circumstance of being almost constantly uncovered, may render them less susceptible of the impressions of cold, than if they were sometimes covered and sometimes exposed; which is generally the case with boys of the same age at other schools, whose hats, even when out of the house, are as often off their heads as on them, particularly during the hours of play.

Some of the boys educated in Christ's Hospital have been delicately brought up, being the children of parents once in the higher or more opulent stations of life, but reduced in their

circumstances; others, on the contrary, are derived from the lowest stations, and from necessitous parents: but much the largest proportion are the children of clergymen, and of persons in the middle walks of life. The general constitutions of the boys may, therefore, be expected to be healthy and vigorous; neither, on the one hand, much enervated by excess of care and indulgence in infancy; nor, on the other hand, debilitated and impoverished by neglect, too great exposure to inclement seasons with inadequate clothing, or a diet, defective in quantity, and perhaps ill-calculated for the purposes of nutrition. Their state of health is, for the most part, found to be such as to justify these expectations.

These introductory remarks might be much extended; but they will probably be esteemed sufficient to afford the previous knowledge that is necessary to our immediate subject.

It being my intention to commit to writing a quarterly Report of the diseases occurring in the Infirmary of Christ's Hospital, it will be desirable to divide the year in such manner, as to correspond, as nearly as possible, to the four usual seasons. The winter season will therefore comprise the months of December, January, and February: the spring season, those of March, April, and May: the summer season, June, July, and August: the autumnal season, September, October, and November.

The diseases will be enumerated in the tabular form; to which will be subjoined such observations as shall be requisite to elucidate those cases which may be esteemed worthy of particular attention; or, to convey such general information as may appear calculated to promote the Science and improve the practice of Medicine.

TABLE OF DISEASES.	1813. December.	1814. January.	1814. February.
1 Cynanche Tonsillaris	9	—	1
2 Cynanche Trachealis	—	2	1
3 Rheumatismus acutus	2	1	—
4 Tussis Catarrhalis	1	2	4
5 Febris Synochus	8	3	4
6 Scarlatina Anginosa	22	1	3
7 Enteritis	1	—	—
8 Odontalgia Catarrhalis	3	3	—
9 Obstipatio	1	1	2
10 Otalgia.	1	—	1
11 Variola	—	1	2
12 Peritonitis	—	1	—
13 Pleurodyne	3	—	1
14 Nausea, Gastrodynia vel Diarrhœa	8	3	6
15 Urticaria.	—	—	4
16 Lichen simplex	—	—	1
Totals	59	18	30

OBSERVATIONS.

Notwithstanding the great severity of the weather during the month of January, it seems to have produced no ill effects upon the health of the boys of Christ's Hospital. The number of diseases occurring among them has been unusually small, when considered as one of the winter months. This is, however, no more than what might have been expected, it being consistent with general experience, that children at this period of life suffer but little inconvenience from the effects of cold, notwithstanding it may be extremely severe.

The only instance of fatality, which has happened among us during the last three months, was in the case of Enteritis, reported in the month of December. Though the boy was only a few days in the Infirmary, yet there is reason to believe from the appearances on dissection, that the disease must have been some considerable time coming on. The symptoms were by no means well defined, nor were there any very alarming appearances until about twenty-four hours before death, about which time mortification probably took place. The extent of mischief, which was afterwards discovered, was under these circumstances truly astonishing.

The body was opened about forty-eight hours after death, by Mr. Stanley, assistant to Mr. Abernethy, and a very skilful and accurate anatomist, who has favoured me with the following statement:

Appearances on Dissection of D. P. aged 15 *years.*

On opening the cavity of the abdomen, there were seen the effects of recent inflammation to the greatest extent, having pervaded every part of the Peritoneum, both in the situation where lining the abdominal muscles, and in its reflections upon the viscera: an effusion of a turbid serous fluid, in quantity exceeding a pint, in which were floating flakes of coagulable lymph, had taken place into the cavity. The contiguous surfaces of the intestines were in many parts adherent. The Jejunum, for an extent of two or three inches, appeared in a state of sphacelation. To this portion of the small intestine was connected a sac, apparently composed of an organised texture, and containing between three and four ounces of a dark-coloured fluid, having no particular odour. Its attachment to the peritoneal coat of the intestine was by a slender pedicle, but no continuity could be traced between the interior of the sac and the cavity of the intestine. The mucous lining of the stomach exhibited a healthy character, as well as that of the rest of the alimentary canal: the structure of the other viscera was natural.

The sac, or appendix, which was found adhering to the Jejunum, is probably a very uncommon production, and whether congenial, or formed during life, it must certainly have been of very long standing*. As this sac discovered a higher degree of sphacelation than the other parts of the intestines, it is not improbable that the commencement of the disease might have taken place there, in the form of chronic inflammation, causing an exudation on the internal surface, gradually distending it to the size in which it appeared after death, and forming that peculiar fluid which it then contained.

Scarlatina Anginosa makes a prominent figure in this Table of Diseases, having been very prevalent among the boys during the whole of the present season. It commenced in the beginning of November, and has been, with a few exceptions, very mild in its form. The number of cases of this disease occurring in the Infirmary since that time were forty-eight, all of which terminated favorably. It has made its appearance at three different periods within the last seven years. The whole number of boys, who have undergone the disease in that time, has exceeded one hundred and fifty; but not one instance of fatality under it has taken place. This may have arisen partly from the general mildness of the disease: but I have no doubt that considerable advantage is at all times enjoyed by the children of this House over those in private families, in the much earlier application of remedies to them when indisposed. In private families two, three, or more days often elapse, even when the morbid symptoms are severe, before medical advice is called for; during which time either nothing whatever is done, or only domestic and empirical remedies are employed. Though these remedies may have caused no positive injury to the patient, yet they must have been attended with the loss of invaluable time; during which the disease may not only have been acquiring strength, but the proper period for the application of powerful preventives may have passed by, and that stage of the malady arrived, in which such means cannot with safety be employed.

On the contrary, in Christ's Hospital, the nurses who have the charge of the boys when in health, have no concern in the management or care of them when ill, and are, therefore, under no temptation to neglect their duty of sending them to the Infirmary immediately upon the first appearance of indisposition.

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* Something similar to this may be found in Morgagni de Sed. et Causis Morbor. Epist. 34, Art. 6.

Cynanche Trachealis is not an uncommon disease among the boys. Eleven cases of it have occurred during the year 1813. This is much beyond an average number, there having been only five instances of it in 1811, and two in 1812, exclusive of three cases which were connected with measles. Some of them were highly inflammatory, while in others the symptoms were mild, and the degree of inflammation moderate. The remarks, already made, upon the advantages attending the early application of suitable remedies, are in no cases more important than in the disease now before us; and the very great success, which has almost invariably followed the treatment of this dangerous malady, is too remarkable not to be considered as a striking confirmation of this opinion. I am perfectly aware that when this disease happens in early infancy, the speediest and most judicious application of remedies will often prove fruitless: this may be caused, partly, by the difficulty of carrying the evacuating plan to a sufficient extent at that age; and, partly, to the rapid vascular excitement which may then be expected to take place. I have long been of opinion that the prognosis of danger in Cynanche Trachealis may be generally formed, under equal degrees of disease, by the age of the patient: the probability of recovery increasing in a ratio nearly corresponding with the increase of years, at least until the age of puberty. How far this observation applies to adults, my experience is not sufficient to enable me to determine; but I have, within this month, had an instance of similar success in a youth about eighteen years of age.

The remedy, on which I would chiefly rely in this disease, is blood-letting, and that performed as expeditiously as possible. It has not been uncommon, in this House, for a boy of ten or twelve years of age to have lost as many ounces of blood from the arm as early as within an hour or two after the first attack. The symptoms are almost always immediately alleviated; and though they will sometimes return after an interval of twelve or twenty-four hours, yet a repetition of bleeding, in quantity proportioned to the age and other circumstances of the patient, seldom fails to be attended with the best effects. At the same time, confinement to bed, a strictly antiphlogistic regimen, purgatives, especially with the submuriate of mercury, an emetic, antimonials in nauseating doses, and vesicatories, are some, or all of them to be employed, as the urgency of symptoms, or duration of the disease may require.

Tracheal inflammation is not uncommon during the febrile state, which exists prior to the eruption of measles. Under these circumstances a similar method of cure to that above described will generally prove successful, and the measles will follow without any unusual severity. I have seen three in-

stances of Croup occurring on the decline of measles, or rather after the danger from that disease appeared to have entirely ceased. Every one of these cases proved fatal in less than forty-eight hours, notwithstanding the most vigorous and decisive application of remedies. They all happened about the same time in September 1807. The atmosphere was then so extremely cold for the season, that most families found it necessary to have recourse to fires, though only about the middle of the month; and to this cause I attributed this unusual event.

In the curative treatment of Croup, I omitted to mention topical bleeding by leeches. Though there are many cases in which they may be useful, and indeed necessary, particularly in very young subjects; yet, where the patient is of such an age as to admit the use of the lancet, it should always be preferred. In fact, early and copious bleeding is, in my opinion, indispensable, and by much the most important part of the curative plan.

Two late French writers on this disease, whose works I have not seen, but from which some extracts are inserted in the Appendix to the Monthly Review, vol. 72, do not appear to have insisted so much upon venesection as I could have wished; indeed, one of them seems to give the preference to topical bleeding by leeches. It is possible that the difference of climate and constitution, in a southern latitude, may render large evacuations of blood more improper than in our northern climate.

The instance of Variola mentioned in the January Report, was attended with circumstances worth recording.

G. M. Y. aged twelve years, was brought into the Infirmary on Thursday, Jan. 13th. He complained of pains in the head and other parts of the body, with the usual symptoms of fever, of which he had a considerable degree: a slight convulsion fit followed. On the 16th an eruption appeared on the skin, soon discovering itself to be the small pox, upon which the other symptoms abated. The eruption, though scarcely to be termed confluent, was as full as could well be without running together, and went on for three or four days in the usual manner, the pustules increasing, both as to dimension and in quantity of fluid contents. After the fourth day no further increase appeared to take place, the pustules gradually diminished, and on the ninth day, from the first eruption, were nearly all dried away. There were no alarming symptoms after the first two or three days, and the boy is now perfectly recovered.

Having understood from his parents that he underwent Variolous Inoculation in his infancy, I wrote to them, requesting information on the subject, and received, in answer, the

following particulars from his father, a clergyman of the Church of England:—That, about eleven years ago, he was inoculated at the Small Pox Hospital, St. Pancras. He was then with his grandfather and grandmother at Camden Town, both of whom are since dead. The Small Pox being in the neighbourhood, these relations, in the absence of his parents, considered it best for him to be inoculated; and on their return to town, they found their son well sprinkled with small pox pustules.

The register books of that Hospital have been carefully examined, for the space of three years, about the period alluded to, in order to obtain further satisfaction, but no trace of such inoculation can be discovered. The father is, nevertheless, perfectly certain of the fact, well recollecting that on his return to London, he met the person who had then the care of his child, coming out of the Hospital with him in her arms, and the eruption fully out upon him. It must, therefore, be supposed that he was registered there under a fictitious name; which is a circumstance I understand by no means uncommon, when the parties wish to remain unknown.

To remove all doubts of this secondary disease being truly variolous, I have to observe that the two cases of Variola, contained in the February Table, were certainly received by infection from this boy.

Both the subjects of it had been previously vaccinated. The history of their Vaccination I have had no opportunity of inquiring into; but from the appearances upon their arms, should suppose it to have been correctly performed. The secondary disease, in both instances, was very slight.

Having in my possession minutes of another case of Small Pox after Variolous Inoculation, which has not been made public, I shall take the liberty of communicating it, though it occurred prior to the period of our present investigation.

G. I. was inoculated with the Small Pox at Camden in Glocestershire when about two months old: the other children in the family were inoculated at the same time, as were also the servants; the children went through the disease in general very favourably, but some of the servants suffered much under it. The subject of our present notice is said not to have taken the disease on the first application of virus, and was therefore inoculated again, when he received the infection in so favourable a manner as to have had only two pustules. The appearance upon the arm at this time is such as to indicate much local action, having left a scar of considerable magnitude, closely surrounded with small marks or pits, apparently from those pustules, which are well known frequently to encircle the place of insertion, when much inflammation is excited there, and is usually an indication that a mild disease will follow.

He was afterwards admitted into Christ's Hospital, and on the 28th of Sept. 1812, when about fourteen years of age, was attacked with symptoms of general fever. Three days afterwards a copious eruption appeared on the skin, which soon discovered itself to be the Small Pox: the disease went through its usual stages with the most perfect safety, producing a very considerable crop of pustules, which maturated well, and on the twelfth day from the first appearance of eruption were nearly all exsiccated. I have reason to believe, that he had not been, prior to this time, much exposed to variolous contagion, having resided chiefly in the country, either with his friends, or in the School at Hertford. The circumstances attending the inoculation were communicated by his relations.

Christ's Hospital, March 5, 1814.

III.

To the Editors of the London Medical Repository.

Gentlemen,

I hope you will not think I presume too much in noticing a case of Ischuria Urethralis inserted in your valuable Journal for February; and which was *successfully* treated by puncturing the bladder above the pubes.

The author states, that the patient was between 50 and 60 years of age; that on being called to him, he passed a catheter (a small one) as far as the prostate gland, but there finding considerable resistance, it was withdrawn: that medical treatment was had recourse to unsuccessfully, and the bladder was then punctured above the pubes: that some little time afterwards, the patient was enabled to pass his urine, per urethram, without any further surgical treatment.

The question I wish to ask the author, is, What he considered to be the cause of the retension? If it had been permanent stricture, and one, too, of so long standing as four years, I do not think it would have yielded without some treatment.

The case appears to me to have been an enlargement of the prostate gland, which most probably might have been ascertained by an examination per rectum. Had that been the disease, of which I have little doubt, the danger of puncturing the bladder above the pubes might have been avoided.

I am, &c. A Friend.

Borough, Feb. 18, 1814.

IV.

Cases of Hydrophobia. By JAMES PARKINSON, Surgeon, Hoxton Square.

To the Editors of the London Medical Repository.

GENTLEMEN,

I TRANSMIT you such particulars as I am able respecting the cases of Hydrophobia, from which must have proceeded those vague reports lately in circulation. Having parted with the notes of the first Case in expectation of its publication; and being no longer in possession of those of the second, I shall be obliged to rely, in the following account, entirely on my memory, which is however so impressed with the most important facts, that although it has to refer to rather a distant period, it will not, I trust, materially mislead me.

It was, to the best of my recollection, about the year 1790, that I was called in the afternoon to a servant maid of the Rev. Mr. Clare, Queen's Row, Hoxton, of about 28 years of age, affected with soreness of the throat and inability of swallowing. On visiting her, she informed me, that the evening before she had first felt some slight soreness of the throat, but that now she had no power of swallowing. Whilst relating this, her countenance and manner manifested such peculiar marks of distress, as led me, although I had never seen the disease, to suspect its existence in the present Case. These suspicions were unhappily soon confirmed. On presenting to her a glass of water, she watched its approach with much anxiety; and immediately on its touching her lips, she shuddered extremely, became strongly convulsed, and appeared to be affected with the highest degree of horror and alarm.

The advice of Sir William Blizard was immediately requested; and the time, nearly an hour, which elapsed before his arrival, was employed in watching the symptoms, and obtaining information respecting the origin of the malady.

The pulse was frequent; the heat, but little more than natural; the mouth was dry, and the tonsils slightly inflamed. She complained exceedingly of thirst, but said it was impossible to drink; for that, as I had seen, directly as the liquid touched her lips, it threw her into convulsions: I therefore promised that I would give her some drink without letting it touch her lips. This I attempted by dropping water on her tongue from a tea-spoon, she opening her lips and mouth as wide as she was able, and leaning her head back on the pillow. This succeeded for a little time, she swallowing the water, and

expressing much gratification; but a drop falling aside on her lips, she became exceedingly agitated, and was with difficulty persuaded to allow me to make another attempt, in a mode in which I told her I could better secure the water from dripping aside. This, however, she at length submitted to, and by dripping the water from the end of my finger on her tongue, she swallowed nearly half a glass full of water with much pleasure, and without any apparent inconvenience. I then placed some calves'-feet jelly on her tongue, in its more solid form; which, as it melted, she swallowed pleasantly, and of this she took freely.

An opportunity offering, I inquired what had become of the little dog I had been accustomed to see at the house. She informed me, "that it had become so troublesome that it had been sent away."—"Had it," I asked, "become cross and snappish?"—"No," she said, "never—it was rather too fond, for it was perpetually leaping on her lap, and licking her hands and arms," which I observed were still rough from chaps. "Then," I said, "he never bit any of the family?"—"Never."—"Pray," I then asked, "were you ever bitten by any dog?"—"Never," she eagerly answered, adding, "Why do you ask?"

When Sir William came, he procured her immediate removal to the London Hospital, where, to the best of my recollection, a consultation of all the medical and surgical officers was obtained, but in vain. She died, I think, within forty-eight hours from her removal. The inspection of the body, which was performed with a particular degree of minuteness and care, presented only the usual unsatisfactory appearances.

Every inquiry made respecting the dog proved unsatisfactory; nor do I believe that any reason appeared for supposing that the dog had manifested any signs of sickness before, or after, its removal. In consequence, I considered this as a Case in which the disease had occurred spontaneously, or that it had been communicated by an animal in a state, which, according to the knowledge we then possessed, was supposed to be incompatible with the existence of the disease.

Under these circumstances I with much pleasure delivered my notes to Dr. Marshall, in consequence of his expressing a wish immediately to publish the Case. The publication was, however, I believe, never made.

The other Case occurred in the summer of ——. The subject of it was a boy about 10 years of age. He came to me, accompanied by four other boys older than himself, he having been bitten by a dog. The canine teeth had passed quite through between the metacarpal bones of the first and middle finger and of the ring and little finger; the skin of the back of the hand and of the fingers was also torn in several places.

By inquiry of the boy himself, apart from his companions, I learnt, that as they were going along a rather narrow walk, one of the boys cried out, "There he is;" meaning a dog which they had been in the habit of teasing; that as they were between him and his home, they ranged themselves across the walk to stop him; and that the dog, after making one unsuccessful attempt, made a push between him and the wall; which he endeavouring to prevent by putting out his hand, the dog seized it, and then ran by and gained his home. As obtaining correct information was here of so much importance, I examined all the other boys separately, who all confirmed the account of the unfortunate boy, and were all satisfied that it was the same dog that they had been accustomed to tease. Discovering no circumstance whatever which would warrant a suspicion of the bite having been inflicted otherwise than defensively, I washed the wounds with spirits of turpentine, and dressed them with a terebinthinate liniment. Still anxious as to the state of the dog, I made additional inquiry respecting it; when I obtained every assurance of the dog being in perfect health.

The wounds were drest with red precipitate and a terebinthinate ointment, and healed in about five days. But at nearly three weeks from the infliction of the bite, I was sent for to the boy, he having had some slight feverishness the night before, which was rather increased. My son accompanied me, and we soon discovered that the dreadful malady was established. Ignorant of any measures that could be relied on, and as Pyrexia, with evident inflammation of the tonsils, existed, we agreed on the experiment of taking away blood, which was done to the quantity of 6 or 7 ounces, by which a slight degree of faintness was produced, without any apparent amendment.

The benevolent assistance of Dr. Yellowly was now requested, and immediately obtained; when, it being considered that no medicine had manifested any remedial powers in this disease, it was agreed to make trial of the effects of lead, and to endeavour to moderate the more urgent spasms by the employment of henbane. The experiment was fully made, the superacetate of lead and the extract of hyosciamus were had recourse to, but without the least advantage; the child, after suffering from every decided symptom of hydrophobia, being seized with convulsions so violent as to require two men to retain him in the bed; to which succeeded a state of quiet insensibility, lasting about half an hour, and terminating in his death, which took place on the third day from the attack.

On the following day a most accurate inspection of the body was made with the assistance of Dr. Yellowly, Mr. G. Young, and Dr. Berger, but without discovering a single circumstance which could point out the seat, or the nature of the disease.

After this fatal termination, the dog which had inflicted the bite again became the subject of inquiry. Dr. Yellowly and myself immediately, therefore, went to its master, who regretted very feelingly the sad catastrophe, but at the same time said that he doubted how it could be attributed to his dog; since, although he had reason to believe, from the provocation the boys were perpetually employing, that he might have inflicted the bite; yet, as we should see, he did not appear to be in a state which would have enabled him to communicate so dreadful a malady. The dog, a fine healthy spaniel, now rushed in and flew on his master's knees, licking his face and mouth with much fondness; his master permitting him thus to manifest his affection for several minutes, for the purpose of evincing his reliance on the healthiness of the dog. I then again questioned the other boys in the most particular manner, and found them all agreeing in the dog which we had just seen, and the dog which had inflicted the bite, being the same.

Not satisfied even with this, I watched the dog during its continuance in the neighbourhood, which was for at least two years, without seeing reason to suspect it of a disposition to injure any one. Within these last five days I have repeated my inquiries, and have learnt that the dog was well a few months ago.

Under these circumstances, I acknowledge, that I have always felt a considerable repugnance to putting the public in possession of this Case, hoping that, positive as the proofs appeared, some mistake might have arisen which time might point out. Even at the present moment, although led to this narration by the vague reports to which this Case has given rise, I also acknowledge, that I come forward an unwilling witness, in support of the probability of a dog, not only free from any characteristic mark of hydrophobia, but apparently in the highest state of health, communicating by its bite this most dreadful and fatal malady.

Hoxton Square, Feb. 1814. JAMES PARKINSON.

IV.

Case of Disease in the Thorax, with Examination post mortem.

MR. T. æt. 53, had been afflicted with asthma seventeen or eighteen years; his first attack was after taking cold from standing in the wet. It had increased more or less every winter from its commencement. He was very sensible of changes in the weather, particularly cold and fogs, when his breath

became much oppressed. He was subject to dyspepsia, which also affected his breath. With the exception of these two complaints, he enjoyed good health and appetite. He lived regularly, and rather abstemiously, to prevent a return of his complaints. On the 7th of December last he attended a funeral, and on his return home in the evening was languid, and complained of not being well. He continued getting gradually worse till the fogs in the Christmas week, when every symptom was much increased, and his breathing much affected. He then took advice; the usual remedies were ordered, but with little relief; he was unable to lie down in bed; had but little cough; and, contrary to what had before occurred in these attacks, little expectoration. He continued gradually sinking in this state, with his pulse intermitting. January 8th, in the afternoon, he became worse, his pulse varying much; and at times his breath appeared lost for five seconds. It was thought he could not survive till the next morning. During this state stimulants were repeatedly given, which gave temporary relief. In the morning a remission of the symptoms took place, and he had some sleep, after which he appeared better. On the 10th he again relapsed; 11th, he was a little better; and on the 12th was considerably relieved. In the early part of the evening he had some sleep. About eight o'clock he started up, appeared affected with a sudden spasm, and immediately sunk into death. During the last week his pulse was never regular.

Two eminent physicians, who attended, were of opinion he had water in the chest, from the state of the pulse, oppression of breathing, and scanty secretion of urine. The day after his death he was opened. In the cavity of the chest no disease was found, nor water; the heart was very large; the pericardium small, scarcely allowing room for the heart to play, and not containing more than the usual quantity of fluid. On dissecting the heart, the valvulæ mitrales were found ossified; and the valvulæ tricuspides cartilaginous. The appearance of the heart and valves sufficiently accounted for the irregular pulse; and the difficult breathing appeared to arise from asthma. This Case shews a complicated disease giving the appearance of a simple one—viz. Hydrothorax.

February 20, 1814. A. B.

VI.

Case of an extensive Fracture of the Cranium, accompanied with Laceration of the Dura Mater and Cerebrum, that terminated favorably. By WILLIAM SHEARLY, Surgeon, Deal.

LIEUTENANT SHEPPERD, Royal Marines, was wounded on board his Majesty's ship Ariadne, by a musket ball, that struck him on the right parietal bone, close to the sagittal suture, whilst in action with a French flotilla off Boulogne.

On being landed at the Royal Naval Hospital, Deal, the 19th day of July 1805, the day after the accident, and at the time I was serving as Senior Assistant Surgeon to that establishment, the pupils of both eyes were much dilated, particularly the right, with coma and stertorous breathing. On examination, the wound of the scalp was found remarkably small; but on the application of the finger to the part, accompanied by moderate pressure, so extensive a fracture was discovered, as to render it necessary to expose the cranium from the right frontal tuberosity, to within half an inch below the lambdoidal suture. The part of the skull struck by the bullet was about the centre of the sagittal suture, where the dura mater was found lacerated to some extent, and the cerebrum wounded. A small quantity of brain was protruded through these lacerations, about the size of two peas, which afterward increased to that of a small hazel nut. So considerable was the fracture, that, on the first examination, twenty-two pieces of different portions of the frontal, parietal, and occipital bones, were removed, including both tables of the cranium; leaving the dura mater exposed to the extent of two inches and a half in a longitudinal direction, and one and a half transversely. All the detached portions of bone that were beaten down upon the dura mater, or thrust through that membrane, being removed, and the coagula of blood cleared away, the divided scalp was restored to its original position, as nearly as possible, by means of slips of sticking plaster; and the patient placed in bed.

Soon after, he evinced signs of returning animation; but his pulse for several hours was scarcely perceptible, owing most probably to the quantity of blood that issued from the divided arteries of the scalp during the operation. Dilatation of the pupils continued for two hours; but the contractile power being gradually restored, the patient sunk into a comfortable undisturbed sleep for several hours; from which he awoke much refreshed. As the patient's senses were gradually restored, all the different viscera resumed their customary functions, with the exception of the bowels, which remained obstinately torpid. It is scarcely necessary to add, that the treatment was strictly antiphlogistic.

The wounds had from the beginning a healthy appearance, without the least disposition to throw out fungus, either from the brain or the dura mater. During the cure, several small exfoliations took place of both tables of the skull. Mr. Shepperd's strength returned much sooner than might have been expected from this alarming and extensive injury done to parts so essential to life. The speech was much injured; and great irritability of disposition was manifested, as his recovery to perfect health advanced.

The foregoing Case evidently shews the great regenerating powers of nature, and adds another proof to the few extant, that the dura mater and brain may be violently and extensively injured without fatal consequences ensuing. It proves also that the dura mater may be punctured with every chance of success, when effusion between that membrane and the brain is found to exist; which practice has been most fully exemplified by Dr. Hutchinson, Surgeon to the Royal Naval Hospital at Deal, in a very valuable paper published by him, in the 2d volume of the Medico Chirurgical Transactions. In Dr. H.'s case, it was the dura mater of the cerebellum that was punctured; the only instance of the kind on record. Mr. John Bell's remark, "that he had always found the puncture of the dura mater fatal," must therefore be at most considered merely as a caution to young practitioners.

PART II.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

PHYSIOLOGY AND PRACTICE OF MEDICINE.

I.—"*Historia naturalis duorum Leucæthiopum, Auctoris ipsius et Sororis ejus, descripta a Georg. Tob. Ludovico Sachs,* Medicinæ & Chirurgiæ Doctore," &c. 1812.

The subjects of this History were born of respectable parents, in a valley of Upper Carinthia. Dr. S. is twenty-five, his sister fifteen years of age. Their father is a native of Bareuth, their mother of Wirtemberg, both healthy persons, with a light tint of brown on the skin, and brownish black hair.

In the twenty-ninth week of her first pregnancy, Mrs. S.

having gone from the strong glare of a bright day into a dark room, was suddenly alarmed by seeing a hare in the corner of it. The reflection of light from the eye of that animal alarmed her, and excited a very extraordinary sensation; and, from this occurrence, the Doctor infers the production of his infirmity.

"Effectum tamen hujus speciei fugere nequiebat. Inde, enim, ab illo momento idem fere sensus, qui erat e lumine ex oculis leporis refulgente, sæpissimè rediit oculis gravidæ, radiis fere, quos adamas in sole spargere solet comparandus. Hoc imprimis occidit, quotiescunque fœtus motum, qui vividior ex illo tempore esse videbatur sentiebat (eam sane ob caussam, qui tunc semper terrifici illius adspectus recordata est).

"Eo factum est, ut jam tunc vereretur ne proles vitio quodam oculorum afflicta prodeat, qui metus animo firmiter infixus eximiè gravidam vexabat."

On the birth of the infant, which proved to be an Albino, the obtrusive vision was no longer perceptible. An occurrence nearly similar took place in the third month of Mrs. S.'s pregnancy with a daughter: she was suddenly alarmed on going into a cottager's habitation, by the appearance of a tame hare, although no reflection of light from its eyes attracted her attention. Half an hour after her return home, whilst reflecting on the circumstance, her eldest son (Dr. S.) came into the room. The first appearance of his glistening eyes excited in her a strong commotion; but, after looking at him attentively for some time, the agitation subsided into a sensation of great pleasure, and her eyes dwelt upon him long with delight. Seven months afterwards she was delivered of a daughter, the exact resemblance of her eldest brother.

This is the early history of the cases. In the author's speculations on the causes of this mutation of the pigmentum, and the influence of the mother on the fœtus, there is nothing demanding a particular notice. A son and two daughters, resembling their parents in complexion, were born in the interval of the birth of Dr. S. and his Albino-sister.

The subjects of this Essay are of the ordinary stature, of the sanguineo-phlegmatic temperament, and passed through their infantile indispositions like all other children. All these, and every complaint antecedent to the present time, are particularly noticed, and the appearance of the skin, hair, and eyes, minutely described. The skin is extremely white, the cuticle very thin, and, upon the scalp, separates freely by combing: the male child had many large warts about the hands, which were removed by rubbing them with the fresh juice of the chelidonium majus. The face is of a pale red colour, which is continued all over the skin of the head. The sevum cutaneum,

sweat, and insensible perspiration, are not different from those excretions in other persons. The skin possesses a high degree of susceptibility of excitement. On one occasion the brother, and several times the sister, had vesications from exposure to the strong rays of the sun.

The hair is fine and silky; the brother's disposed to curl; but the sister's cannot be made to assume that form without much difficulty, and by the least dampness of the atmosphere returns to its natural uncurled state. In both individuals it was white at their birth, and generally became yellowish in proportion to its length and exposure to the sun; yet this yellowness has its limits, and, at furthest, only approaches to the colour commonly observed in persons of the fairest complexion*.

A chemical analysis of the hair proved that a smaller quantity of carbon and calcareous matter is contained in it, than in the dark coloured hair of other individuals. The experiments appear to have been conducted with great attention, and a table of the comparative difference is subjoined. The following remark shews how minutely the subject has been investigated:—"Reliquis pilis varia corporis loca obsidentibus idem qui capillis, est color. Præter quem nihil fere singulare præ se ferunt."

The eyes are deeply seated in the orbits, the eye-brows white, dense, prominent, and lowering, and moved by strong muscles. The palpebræ are very excitable by the stimulus of light; and they are frequently almost closed: the upper eyelid is rather shorter than in other individuals, on account of the depressed state of the supercilia. The eye-lashes are white, dense, long, soft, and sufficiently elastic.

The eyes are never still, but oscillate like the pendulum of a clock, with considerable velocity, sometimes turning a little upwards and downwards, so as to describe a very oblong ellipse. This motion of the eyes, both in velocity and direction, is equal and synchronous. It is increased by stronger, and diminished by weaker rays of light; but it does not cease altogether in the dark, nor even when the eyes are shut; as it is discovered by applying the fingers to the eye-lids. And this oscillatory motion takes place inconsciously and involuntarily, although it does not prevent the eyes from being subject to the power of volition, which, however, only alters the centre of the ellipses described by the spontaneous movement of the eye. When-

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* Capillorum colorem ipsum describere frustra tentaremus. Universè fratris capillos *ex albo flavescentes*, sororis capillos maximum partem *e flavo* albescentes dixeremus.

ever the eye is kept attentively to one object, the oscillation is impeded, but never totally suspended.

The albugo does not present any variety; the vessels on the conjunctiva are rather more visible than those on the eyes of other persons. The transparent cornea is more convex than usual, and the iris extremely susceptible of motion.

In a room, where there is just sufficient light to discern common objects, the pupil is of the same size as in other individuals. In a middling degree of light,—for example, in a room, at mid-day, with the eyes turned from the window,—it is rather larger than in the generality of people. In a strong light, with the head uncovered, it is contracted to the size of a pin's head; and in the strongest light—particularly when looking at white or shining objects—the eye-lids are so much closed, and the cilia so contiguous, that the size of the pupil cannot be ascertained. The colour of the iris is blue, with a tint of red, which is more vivid towards its external margin. These colours appear to be varied according to the manner of viewing the eye. The colour of the posterior part of the eye is also variable according to the degree of circumambient light.

The remaining part of this history relates to the effects of light on the organ of sight, to the influence of optical glasses, to the comparative distinctness of vision under various circumstances; but as this occupies a large space, we must refer those of our readers, who desire to follow Dr. Sachs in his details, to the work itself.

II.—M. JOURDAN, Surgeon of the Imperial Guard, in conjunction with M. Alyon, has published, in Paris, a Translation of Professor Hecker's work on Gonorrhœa, with a preface and notes, which display much general erudition and particular research.

In the historical part, it is proved on the authority of sacred history, the classic authors, and the early medical writers, that excretions of fluid from the urethra, mucous and puriform, had been noticed; but, that no distinct account of a disease known by the name of Gonorrhœa, is to be found, until after the appearance of the venereal disease in Europe.

The author enumerates fifteen species of Gonorrhœa, which may be ranged under four general heads.

1. Gonorrhœa, commonly so called, (Blennorhagia urethralis of Swediaur,) excited by the stimulus of a specific contagion.

2. A flow of puriform mucus from local irritation of the urethra, not contagious.

3. An occasional sympathetic action of the mucous glands of the urethra in scrophulous, gouty, and other subjects.

4. An increased secretion of mucus, or an escape of the seminal fluid, caused by an atonic state of the parts.

A very weak solution of caustic alkali, one grain to each ounce of water, which may be further diluted, is recommended as the best preventive of Gonorrhœa; or lime water, with half a grain of oxymuriate of mercury to each ounce. One or the other of these lotions is to be used immediately after coition, and employed frequently for several days.

The general management of the complaint is not dissimilar from that employed in this country, namely, to endeavour to check the inflammation at its commencement; but instead of injections, he recommends the use of sedative soluble bougies. As this part of the treatment presents some novelty, we shall give an account of Dr. Hecker's instructions for the composition and use of his remedy.

Dr. Hecker prepares his soluble bougies, by combining the substances intended to be employed with a gum of easy solution in the mucus of the urethra. The basis of the bougie is a cotton, or worsted thread, about the length of a finger, upon which the composition is spread so as to form a soft and uniform covering.

"Dissolve four grains of caustic potass (kali purum) in two ounces of distilled water, and add a sufficient quantity of gum arabic (powdered) to make the solution viscid: Dip the pieces of cotton into the composition, and suspend them separately by pins, taking care that they retain a proper form; then dip them again when dry, and continue this process until they are of a convenient size to pass into the urethra."

Bougies are made in like manner by dissolving four grains of oxymuriate of mercury in two ounces of distilled water, adding a sufficient quantity of gum arabic to give them a proper consistence. A drachm of the aqueous extract of opium may be added to the solution of potass, or to the solution of mercury.

Bougies can also be made by the addition of opium to the plain mucilage; and these are found to be particularly useful where the urethra is much inflamed, or in a state of high irritation. Alum, acetate of lead, and other astringent substances, can be equally blended and formed into bougies, and thus become beneficial in an atonic or weak state of the urethra. Extract of hyosciamus, or of belladona, either alone, or combined with the oxy-muriate of mercury, are deserving of attention, in cases of severe pain, spasm, and obstinate inflammation of the canal.

Dr. Hecker considers that a double object is to be fulfilled by these bougies: the first, to allay acute pain; the second, to excite in the urethra, inflamed by a morbific contagious principle, an irritation which shall overcome its action, and remove the inflammation dependent on local debility. Following this theory, he recommends the bougies to be employed only before the inflammation is fully formed, or, whilst it is moderate. They are to be moistened with saliva, or milk, gently passed beyond the seat of the disease, which is considered to be chiefly about the *fossa navicularis*, and permitted to remain in the urethra half an hour, or longer, until the coating is totally dissolved, when the thread is to be withdrawn, and another introduced, either immediately or after a short interval *(au bout de quelque temps)*. If the pain excited be slight and supportable, the instrument is to be retained, as this sensation soon subsides; but, if severe, it is to be withdrawn, being considered a proof that the bougie is either too large, or its ingredients are too stimulant. The patient should remain on the bed or sofa during the time of using these instruments: if at night, they are to be secured by a tape in the same manner as common bougies.

During the first period of Gonorrhœa, and before the inflammation is considerable, bougies made of potass and opium are said to be the most proper. If they be employed early with the requisite precautions, and a suitable regimen be strictly observed, the gonorrhœal inflammation does not proceed in its usual course, and the disease is cured in two or three days.

We are neither prepared to approve, nor to condemn, the plan suggested by Dr. H. Future experience will decide the question. If we were to reason à priori on the subject, the conclusion would be, that the application of any extraneous body to a membrane so sensible of irritation as the urethra, would produce more excitement than the most sedative medicaments could allay; but as the modus operandi of opium, and other narcotics, is, by many, believed to be the effect of a peculiar stimulus, we must refer the decision of this practical point to the result of well instituted experiments. In a complaint, where such diversity of opinion exists amongst eminent surgeons as to the most speedy and efficacious treatment, every practical suggestion deserves notice; but we recommend our readers to adopt this practice with extreme caution and a minute attention to the injunctions of the author.

CHEMISTRY.

III.—As we conceive every subject connected with the animal œconomy, whether in a state of health or of disease, to

be more immediately the object of this Journal, we think it will not be unacceptable to the majority of our readers to occupy this division of the present Number, with a translation of the greater part of a paper by Bouillon-Lagrange, on the Meconium of Infants, published in the *Annales de Chimie*, for June 1813, and intitled, *Examen du Méconium des Enfans, et de celui des Agneaux.* We shall omit, however, that part of the paper, to which the latter part of the title refers.

In the introduction, M. Bouillon-Lagrange observes that, except the examinations of Bayen and Deleurye*, no chemical investigation of the nature of meconium has been published. The result of Bayen's experiments was, that meconium is a real excrement, but of a milky nature, and mixed with bile, in the same manner as that of adults: and this result is confirmed by the investigations of M. Lagrange.

The meconium which our author submitted to examination, was procured from a healthy infant, a few hours after its birth, when it had taken only a little sugar and water.

" This meconium, newly passed, was of deep greenish yellow colour, without any remarkable odour; its taste was sweet and mawkish, leaving on the palate a slight bitterness; its consistence that of good honey, but viscid and elastic; so that a part could not be separated without the whole mass being drawn out. In general, meconium has very much the tenacity of bird-lime.

" Submitted to experiments, it presented the following phenomena.

" A. *Effects of Caloric.* Ten parts of recent meconium exposed to a gentle heat in a stove, lost seven parts by drying; it contains, therefore, seventy parts in a hundred, of moisture.

" This dried meconium, reduced to powder, assumed a greenish yellow colour, and acquired an odour analogous to that of new-baked rye bread before it is quite cold. Previous to being powdered, the dried substance could not be easily broken, owing to an infinity of small hairs, the interlacing of which, with its particles, produced a texture similar to that of felt.

" The meconium, deprived as much as possible of these hairs, and thrown upon burning coals, puffed up, and exhaled an odour which did not at all resemble that of burning animal matter.

" Submitted to distillation in a retort with a gentle heat, it

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* From the investigations of these chemists was formed the article Meconium, in *Le Systeme des Connaissances Chimiques*, by *Fourcroy.*

swelled, and then boiled, owing to the moisture it contained; and an acidulous water passed over into the receiver; but, on encreasing the degree of heat a little, an empyreumatic oil was obtained, from which, when it was mixed with potass, ammonia was disengaged. A carbonaceous matter remained in the retort.

" B. *Action of the Air.* The recent meconium exposed to the air for fifteen days, in a damp place, became soon covered with a white pellicle; and acquired a fœtid odour; but nevertheless very distinct from that which animal substances usually exhale.

" C. *Action of Water.* Recent meconium may be diluted with a small portion of water; but it requires to be triturated with it, in a mortar, for a considerable length of time; after which, it has a greenish colour, and a mucilaginous consistence. If a large quantity of water be added, and the mixture filtered, it is no longer viscid; and a substance remains on the filter which contains the above-mentioned hairs.

" If the filtered fluid be boiled, it suffers no change in transparency, and nothing is separated; which seems to prove that it contains no albumen.

" The filtered fluid is bitterish, but neither acid nor alkaline.

" Alcohol throws down in it a slight precipitate. This is not mucilage, as might be conjectured, but the meconium itself, which is much more soluble in water than in alcohol.

" Infusion of galls produces no change in the fluid; but muriatic acid forms in it light yellowish flocculi. This precipitate is only a combination of the meconium with the acid.

" If recent meconium be boiled for some time with water, the liquid remains clear, but acquires a greenish yellow colour, and a bitter taste. This solution filtered, and a little concentrated by heat, is precipitated by alcohol; but the precipitate is redissolved by the addition of a little water. It is precipitated, also, although less copiously, by a strong infusion of galls.

" The oxymuriatic acid destroys altogether the colour of the liquid; and forms whitish flakes in it.

" The precipitates by the infusion of galls, and the oxymuriatic acid, are not re-dissolved in boiling water.

" The sulphuric, nitric, and muriatic acids form no precipitates, even in the most concentrated solutions; wherefore, as these acids precipitate bile, even when it is largely diluted with water, it might be presumed that meconium contains no bile.

" Nitrate of mercury at a *minimum* forms a very abundant white precipitate; but scarcely any precipitate is produced with acetate of lead.

" If recent meconium be boiled with water, frequently re-

newed, a large portion of it may be dissolved; and a white, somewhat bulky, transparent, viscid matter remains, which shall be afterwards considered.

"It has been already stated, that ten parts of recent meconium, dried in a stove, were reduced to three parts. The portion these constitute, have a green colour when powdered; and when washed with boiled water until no more is taken up, a substance remains, which, while it is moist, is white, viscid, transparent, and a little unctuous to the feel; insoluble in water and alcohol, but readily dissolved by the acids. It is equal to about two hundred parts of the meconium employed. This substance appears to me to have some analogy with the mucus of the nose.

"A solution of meconium in either cold or boiling water, acquires, in a few days, an odour nearly resembling that of urine; which led me to suppose that this substance might contain urée. I consequently evaporated the fluid to the consistence of syrup, and added some nitric acid; but I did not procure the pearly scales which this acid always forms in a solution of urée.

"An aqueous solution of meconium was slowly evaporated to dryness in a stove; there remained some shining scales, which resembled dried meconium when powdered: they attracted no moisture from the air. Concentrated sulphuric acid poured over them, acquired, after some time, a red colour. The same effect was produced by dried meconium, reduced to powder. Upon the whole, the product of the evaporation of the aqueous solution nearly resembled, in its properties, meconium deprived of the hairs, and of that substance which I have compared to mucus.

"If the scales be distilled in a glass retort, a colourless fluid is obtained, from which ammonia is disengaged by the addition of potass.

"These scales may be obtained from an aqueous solution, either of recent or of dried meconium.

"D. *Action of Acids.* Nitric acid of 36 degrees poured upon dried meconium, and left to macerate for some time, acquired a bright red colour; aided by heat it dissolved the substance altogether, and the solution was yellow: a small portion of fat was also formed, which floated on the surface: the solution contained a little oxalic acid. When afterwards evaporated to dryness, a red, deliquescent, very acerb, astringent powder remained; which was not entirely soluble in boiling water.

Meconium, dried and powdered, was thrown into a flask containing oxymuriatic gas; it was almost instantly formed into a yellowish white substance. The same effect was pro-

duced by passing a stream of this gas through an aqueous solution of meconium. This substance dried has a bitter astringent taste.

"E. *Action of Alcohol.* Cold alcohol acts feebly on meconium; when boiled with it, the spirit is coloured yellow, and acquires a bitterish taste. The filtered fluid was placed in a stove; it deposited greenish scales, perfectly similar to those procured by the evaporation of the aqueous solution.

"*Examination of the green matter voided by infants afflicted with gripes.* This substance is usually mixed with excrement more or less yellow. After having been separated, its colour is grass-green; but, when dried in a stove, the green colour disappears: what remains is yellowish, unctuous, with an odour very similar to that of rancid fat; and, like the meconium, is mixed with little hairs.

"Treated with cold water, it does not communicate to the fluid any bitter taste. If this solution be boiled, no matter is separated; which proves that it does not contain any albumen; evaporated to dryness, a purely vegetable matter is procured.

"Treated with boiling water, the fluid assumes a yellow tint; and when it is concentrated, has a slightly bitter taste.

"The matter which remained on the filter was well washed with hot water; then treated with boiling alcohol, and the fluid filtered while hot. On cooling, it let fall a white, grumous substance, and deposited a yellowish, transparent, fatty matter upon the sides of the flask.

"After the evaporation of the alcohol, a solid yellowish substance remained, acrid to the taste, bitter and rancid, immiscible with water, and swimming upon that fluid, leaving a mark upon paper, and forming with potass a compound analagous to soap. This substance melts at a temperature higher than that required for the melting of suet.

"Melted in nitric acid it congeals on cooling, and then presents the characters of adipocire.

"Finally, this substance soluble in boiling alcohol, appears to me to differ from solid fat only in as much as a higher temperature is required to melt it.

"I am therefore of opinion that the green matter which is found mixed, under certain circumstances, with the stools of infants, particularly when they are afflicted with gripes, is of a purely vegetable nature, composed of a green colouring matter, and a fatty substance, mixed with hairs which are undoubtedly accidental. The attention of physicians ought on this account to be directed to the presence of fat in the stools of infants."

The conclusion of the paper is promised to be given in the following number of the *Annales*, which we have not yet seen;

but we pledge ourselves to present it to our readers as soon as we obtain the number.

PHARMACY.

IV.—The same number of the *Annales de Chimie*, contains a paper by M. *Dubuc*, Apothecary and Chemist at Rouen, intitled, *Notice sur les alcohols ou liqueurs spiritueuses, et sur les changemens qu'ils éprouvent par leur rectification avec des matieres alcalines, salines, terreuses, &c.; suivies d'un procédé simple pour obtenir de l'esprit-de-vin le plus déphlegmé, sans altérer ses principes constituans.*"

This is an excellent paper; and is evidently the production of a practical man, who speaks of those things only with which he is well acquainted.

After cursorily stating that Boërhaave, Cartheuser, and Sthal, had directed their attention to this subject, and slightly noticing the improvements by Lemery, the following definition by Beaumé is given, as describing all the characteristics of good alcohol, whether obtained from wine, cider, perry, rum, or any other spiritous fluid. "Its physical and chemical properties, besides its lightness, are perfect transparency, volatility, and great inflammability; burning without the production of smoke; an agreeable odour, a hot taste, and not altering infusions of turnsol and violets."

Various alkaline and earthy matters have been employed to produce a high degree of rectification; but Dubuc asserts, that the properties of the spirit are altered by these substances, and thence it cannot be regarded as pure alcohol. The substances which have been more generally employed, are, 1. The two fixed alkalies; 2. The muriate of lime; 3. The muriate of potass; 4. Quicklime; 5. Plaster of Paris, or Gypsum; 6. Sulphate of Soda; and, lately, the Acetate of Potass, melted and reduced to powder.

Dubuc states the result of his employment of each of these substances.

With the *fixed alkalies*, a very light, subtle spirit was produced; "but it had lost its natural sweetness; changed to a green colour the infusion of violets, and the juice of buckthorn: and threw down a copious precipitate in water, containing calcareous sulphates; effects which prove that spirit thus rectified is either altered in its elements, or receives the addition of some foreign principle."

Pure alcohol rectified with the *muriates of lime* and *of potass* slightly calcined, although stronger than that procured with the alkalies, is, nevertheless, not good alcohol. It differs from it in having "a hot, bitter, acrid taste; and by the presence of the salts employed in the rectification, which can easily be de-

monstrated by ammonia, and the nitrates of silver and of mercury."

Quicklime, grossly powdered, when mixed with alcohol, produces a degree of heat sufficient to elevate part of the spirit without the aid of external heat; but even this displays marks of alkalescence, when agitated with the juice of buckthorn. The remainder, distilled in a water bath, acquires very acrid properties, and becomes instantly milky when mixed with common water saturated with carbonic acid gas.

Calcined gypsum produces also a strong spirit, although perhaps less so than the four preceding substances, but it has a disagreeable odour, and is rendered muddy by the infusion of the flowers of the red-poppy, while pure alcohol is only heightened in colour. It also communicates the tint of decayed leaves to infusion of violets: which demonstrates some alteration of properties, or the presence of a foreign body in the fluid spirit."

A very excellent spirit, nearly equal in every respect to that which is procured without any intermediate substance, is obtained by rectifying with *sulphate of soda*, entirely deprived of its water of crystallization. But, notwithstanding its agreeable odour, barytic water detects in it some of the salt employed in the distillation.

By calcined Acetate of Potass. Pure alcohol distilled in a water-bath with this salt, acquired more than 46 degrees (at a temperature of 10+0 *Réaum: 54° 5′ Farenheit*); but differs from good alcohol in the following circumstances. 1. Its odour is very pungent, bearing some resemblance to that of the solution of potass of the shops (*sel de tartre des pharmacies.*) 2. It has an acrid, soapy, slightly bitter taste. 3. It gives a green colour to the infusion of violets.

From the above-mentioned facts, therefore, it is evident that these six substances are not adapted for procuring a perfectly pure spirit of wine.

It has been proposed to distil alcohol, at 36 degrees, in a water-bath, with about one-sixth of its weight of sulphuric acid. If the product does not exceed 38 degrees, it possesses all the properties of a pure spirit; "but if a new portion of acid be added, it then, in conjunction with a greater specific levity, acquires a fragrant, slightly etherial odour, which demonstrates some alteration of its elements."

Dubuc mixed one part of calcined alum in powder, with two parts of spirit of wine, at 36 degrees; and two days afterwards distilled it from a water-bath. The product was a spirit of 39 degrees, of an agreeable colour, and not altered in its constituents; but it reddened strongly infusions of turnsol and violets: and alum was detected in it by barytes. He also

rectified alcohol of 39 degrees with *muriate of soda* calcined, till it acquired a grey colour, by a long continued exposure to a red heat. After successive distillations and rectifications from a water-bath, with this salt, the alcohol remained in its original state, except that it contained a small portion of the salt, which had been elevated during the process; and which was rendered sensible in the spirit, by the addition of a few drops of a solution of nitrate of mercury or of silver.

"Reflecting on the hygrometric properties of carbon," says M. Dubuc," and upon the attraction of pure alumina and common argil for water, which they retain even in a very high temperature; and having observed that no alteration of the properties of the alcohol are produced by these substances, I employed them successively in the rectification of spirit of wine. Many experiments were necessarily made; but I here shall relate only the more important.

"1. *By charcoal.* In a litre of alcohol of 36 degrees, at a mean temperature, I put four ounces, 128 grammes of birch charcoal *(braise de bouleau)*, broken into small pieces, and still warm; and agitated the mixture, to hasten the immersion and imbibition of the charcoal. After four days, I filtered the spirit, and observed that it was still of 36 degrees. The experiment was repeated with very pure alcohol of 36 degrees; and, after maceration with the charcoal for many days, it still retained its original levity. These effects demonstrate that charcoal equally absorbs alcohol and water.

"The mixtures of the charcoal and spirit were then distilled to dryness in a water-bath; the alcohol, the gravity of which was originally 36 degrees, gained one degree by this operation; but any higher retained its first specific gravity."

These experiments were repeated with animal charcoal, and with charcoals made from the willow, the oak, the beech, the apple tree, &c.; but no alcohol exceeding 40 degrees was obtained, even by operating in a large way. The chief effect produced was, that the alcohol acquired "a sweeter odour, and a more agreeable taste than that procured in the common method, or without any intermediate substance."

"2. *By pure Alumina, and by common Argil.* In a litre of alcohol of 39 degrees, I put eight ounces of pure well-dried alumina; after two days immersion, and at the same temperature as in the former experiments, I cautiously decanted a quantity of the spirit, and observed that it was of 40 degrees. After having distilled it in a water-bath to dryness, the fluid which came over had a pungent colour, very disagreeable, and had gained one degree: the alumina was now strongly calcined, to extract about 32 grammes of water, which it had withdrawn from the alcohol; and the alcohol redistilled from

it. By this second rectification, the spirit acquired another degree, or was of 42 degrees of strength, at a mean temperature.

"This alcohol possesses all the properties which characterize good spirit of wine: neither the taste, the smell, nor even re-agents, detect the presence of any foreign substance: its specific gravity is to that of water as 8.292 : 10.000.

"Alcohol of the degree of rectification last mentioned, may also be obtained by employing *common clay* well washed, then passed through a cloth and strongly dried; (it requires a third more than of pure alumina;) but by employing successive distillations and rectifications with this substance, I am convinced it is vain to attempt to give a greater degree of levity to alcohol by this method. These circumstances have also led me to conclude, that this earthy matter exerts no influence upon the elements of the alcohol, but only attracts the superabundance of water. As we are ignorant," says M. Dubuc, "that this substance has ever before been employed for a similar purpose, we propose it with confidence to chemists and distillers for manufacturing a very strong spirit of wine; and we believe, from our own experience, that the most highly rectified spirit, if not altered in its constituents, should always be of 42 degrees of Beaumé's aerometer, at a mean temperature."

The remainder of Dubuc's paper is not sufficiently interesting to require a particular notice. He, however, observes, that after an experience of twenty-five years in the manufacture of alcohol, he is convinced that alcohol rectified with the greatest care, without any intermediate substance, and carried to the highest degree of spirituousity, still displays in a sensible manner its origin; and it is always easy to say, this alcohol is produced from wine; that from cider; this from perry; that from rum, &c. The best and most simple method of detecting the aroma, which characterizes the particular spirit from which alcohol has been produced, is by the odour exhaled from rubbing the alcohol between the hands, tasting it when diluted in a sufficient quantity of tepid water, or by mixing it with a little sulphuric acid.

In a pharmaceutical point of view the subject is important; but many experiments are yet required to ascertain the best and cheapest method of producing pure alcohol for general purposes, and of detecting its degree of purity.

ZOOLOGY.

V.—In the Memoirs of the French Institution for 1809, some interesting experiments on comparative Physiology are noticed. We shall extract those that relate to the respiration of fishes.

Experiments by Spallazani and M. Sylvestre had demonstrated that fishes in breathing do not decompose the water, as some philosophers believe; but they either separate the oxygen which is simply mixed with the water, or rise to its surface to collect this gas immediately from the atmosphere. The quantity, however, of the gas absorbed by fishes during respiration, had not been ascertained. Several experiments to determine this point, and the general phenomena attending the function of respiration in these animals, were, therefore, instituted by M.M. Humboldt and Provençal. They examined the action of the gills upon water impregnated with oxygen and azote, with carbonic acid, and with a mixture of hydrogen and oxygen; and then examined the effects produced by fishes on these different aeriform fluids.

Seven tench *(cyprinus tinca)* were placed under a bell glass containing 4000 cubic centimetres of river water: after eight hours the fish were withdrawn from the water, aud the air remaining in it analysed. The analysis demonstrated that, in the above mentioned time, the fish had absorbed 145.4 of oxygen, 57.6 of azote; and that 132 of carbonic acid had been produced: "whence," observe these philosophers, it follows, "that in the respiration of the fishes submitted to this experiment, the volume of the oxygen absorbed was not three times that of the azote which had disappeared, and that more than an eighth of the former had not been converted into carbonic acid."

Fishes suffered in water completely freed from air; and after twenty minutes fell motionless to the bottom of the vessel. In pure oxygen gas, these animals appeared to respire briskly, and to spread their gills wider. In azote and hydrogen gas, they held their gills closed, as if afraid of the contact of these gases, and soon died after being put into the water containing them. Carbonic acid also killed them in a few minutes: but fishes do not absorb oxygen and azote by the gills only; the whole surface of their bodies has the faculty of acting upon and assimilating these gases. After taking the fish from the water saturated with the deleterious gases, and having analysed it, a portion of carbonic acid was found in the fluid: but as no oxygen was absorbed, M.M. Humboldt and Provençal observe, that it is probable this acid gas was not the result of respiration, but had been exhaled from the surface of the bodies of the fish.

The same volume contains some observations on the swimming bladder of fishes. This organ, which is found in this class of animals only, is nevertheless not observed in every species; and it displays many varieties of organization. It is generally filled with air, and is composed of two membranes. In some species it communicates with the stomach by a canal; but in others there is no apparent communication, in which case

it contains, according to the observations of M. Duvernoy, a peculiar secreting organ of a red colour and lamellar structure. Some bladders are provided both with this red organ, and a canal; and some, although few in number, have muscles proper to them. Authors differ very much with regard to the uses of the swimming bladder, and its different parts. The more general opinion is, that it serves to alter the specific gravity of the fish; and that the animal, by compressing this organ so as to vary its dimensions, is enabled either to remain in an equilibrium, or to rise or descend in the water. The air contained in the bladder, as has been ascertained by Biot, is a mixture of oxygen and azote, varying in the proportions according as fishes live in deep or shallow water. The bladders of those which are found at the bottom of the sea, contain a greater proportion of oxygen, while azote abounds in those which come to the surface. These facts M. Delaroche verified, by the examination of the bladders of a great number of fish taken in the Mediterranean.

M.M. Humboldt and Provençal have also investigated the nature of this organ of fishes, with the view of ascertaining, whether it has any connection with the organs of respiration. The principal results of their experiments are, that the air contained in the swimming bladder has no connection whatever with the air that comes in contact with the gills; that the abscence of this organ does not injure respiration, but that it appears to lessen the production of the carbonic acid gas. They found, also, that some tench, from which the swimming bladder had been taken, swam, and rose and sunk in the water with as much facility as those which are provided with it. The real use of this organ, therefore, is yet undetermined.

VI.—The Medical Society (Société de Medicine) of Paris have elected M. Chaussier, President; Bonnafox de Malet, Vice-President; Giraudy, Perpetual Secretary; Villeneuve, Private Secretary; Nauche and Dubois, Presidents of the Sections, of Medicine and Surgery; Berthonice and Cormac, Secretaries to draw out the Reports.

VII.—Notice of Prizes proposed by the Society for the Encouragement of National Industry, at the General Sitting of October, 1813—to be awarded in 1814, 1815, and 1816.

PRIZES FOR 1814.

Mechanical Arts.—For the fabrication of that kind of silk called Galette of Switzerland.

For making thread of all degrees of thickness by machinery carded wool, for warp and woof.

Chemistry.—A premium to decide the question, What

is the nature of the change which hair sustains by the process in use for making hats, known by the name of *Secretage?* and to point out other means that can be used instead of mercurial salts and other substances which are detrimental to workmen.

Economical Arts.—A premium for making honey.

A premium for making metal vessels covered with an economical enamel.

A premium for the comparative culture of oleaginous plants.

Mechanical Arts.—A premium of encouragement for making from hemp-line, or any other materials, tubes without seams, for the use of fire-engines.

PRIZES FOR 1815.

Chemistry—A premium for the best process for making fish-glue (isinglass).

Agriculture.—A premium for the culture of plants which furnish potass.

Mechanical Arts.—A premium for making various things of cast iron, for which copper or wrought iron are usually employed.

Economical Arts.—A premium for the best method of salting meat.

A premium for preserving animal food by drying it.

PART III.

ANALYTICAL REVIEW.

I.

Treatise on the History, Nature, and Treatment of Chincough; including a variety of Cases and Dissections; to which is subjoined, An Inquiry into the Relative Mortality of the Principal Diseases of Children, &c. By Robert Watt, M. D. 8vo. pp. 392. Glasgow, 1813.

The author of the volume before us is well known to the Medical world, by his work on Diabetes, which appeared about

six years ago; and excited much attention, on account of the novelty of the practice it described; the boldness and independence of inquiry it displayed; and the ingenuity of the reasonings by which the author supported both his theoretical opinions and his practice. The present production is distinguished by equally strong lineaments; displaying the same free spirit of investigation, and equal ingenuity; with all the defects of style, and the other deformities which characterized its precursor.

In the Preface, we are informed, that Doctor Watt had meditated an Essay on Chincough, about eight years before the publication of the present Treatise; but abandoned it: and we lament the severe domestic calamity, which induced him again to resume the subject. In the months of December 1812, and January 1813, four of his children were "affected with chincough, the two eldest of whom died. The anxiety occasioned by this severe and unexpected event, led to fresh investigations; but the more he read and studied, the more he found himself bewildered and perplexed." (p. 9.) Finding no satisfactory information in books, the Doctor had recourse to morbid anatomy; and from the inspection of the bodies of his own children by some friends on whose accuracy he could depend; and the personal inspection of those bodies of his patients, in whom the disease proved fatal, which he was allowed to open, he had his doubts resolved; and believed, that he perceived clearly the nature of the disease. In drawing up the results of his investigations, it has been his aim to give a general view of the subject, not merely as it occurred to his own observation and experience; but also as it was [is] to be found in our best medical writers." (p. 10.) How far he has succeeded in fulfilling his intentions, our readers will be partly enabled to decide, by the following analysis.

The appendix contains some very hasty conclusions, drawn from a very limited circle of observation, on a subject of great importance; and, therefore, we shall give it all the considera-tion in our power, both with the view of settling the public opinion, and arresting the propagation of error, which is always so much the more injurious, the more respectable the source whence it emanates.

The work is divided into three parts; the first containing *the History of Chincough*; the second treating of *the Nature of Chincough*; and the third detailing *the Treatment of Chincough*: and these divisions are again subdivided into sections. The History commences with some remarks on the *Name* of the Disease.

Of the three appellations, Hooping Cough, Kinkcough, and Chincough, by which the disease is known in Great Britain, Dr. Watt prefers the last. The term Hooping-cough

he discards, because it is "a longer and a more compounded word than that which he has adopted; and conveys," says he, "an erroneous notion of the disease," the peculiar sound denominated a hoop not being "met with in a great proportion of cases." He rejects Kinkcough, because it is a term, the use of which is confined to Scotland. Chincough, on the contrary, he conceives, to be "a mere arbitrary term, chosen to express a peculiar disease." He enters into an etymological disquisition regarding the origin of the term Chincough, and objects to Doctor Johnson's derivation of the first part of it from the Dutch word, *Kinckin* [*Kincken*], which signifies to pant*. Now we think there is a great deal of affectation in this; and conceive it would have been more creditable to our author, to have used the common term Hooping-cough, notwithstanding its sesquipedalian and compounded character, as one which is more generally employed by contemporary writers; and which designates, undoubtedly, the only certain diagnostic symptom of the disease, when the nature of the prevailing epidemic is not yet ascertained, or the source of the contagion obvious.—"It is especially," says Cullen, "by another circumstance that the Chincough is distinguished from every other form of cough. This circumstance is, when many expiratory motions have been convulsively made, and thereby the air is in great quantity thrown out of the lungs, a full inspiration is necessarily and suddenly made; by which the air rushing in through the glottis with unusual velocity, gives a peculiar sound†."—Again, observes Dr. Heberden, "Postea autem errari nullus est locus, cum tussis perseverat, donec ægri pene deficiant priusquam spiritum attrahere sono fit, proprio hujus tussis indicio, unde etiam nomen apud nonnullas gentes impositum est‡."—We must condemn, also, the frequent use of the word kink; particularly as it is employed in two different senses in Scotland; the one to denote the paroxysm of coughing, the other to ex-

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* In Jameson's Dictionary of Scotch words we find the following:—

To Kink—1. To labour for breath, in a severe fit of coughing, especially applied to a child in the chin-cough, who, during the fit of coughing, seems almost entirely deprived of respiration.—*S. A. Bor.*

Teut:—Kink-en—Difficulter spirare leviter atque inaniter tussire, singultive; *Kilian.*

2. To laugh immoderately.

† *First Lines*, vol. 3. p. 450.

‡ *Heberden Commentarii*, 375.

press the peculiar sound (inspiratio sonora) with which the cough is accompanied.

With respect to the antiquity of the disease, we agree with Dr. Watt, that none of the species of coughs described by the Greek, Roman, or Arabian writers, resembles the hooping-cough of modern times; and, although, "in Britain it has prevailed from time immemorial," yet, that it is probable the ancients were altogether unacquainted with it. "One of the earliest authors, who has described the Chincough, is our countryman Willis, who practised first in Oxford, and afterwards in London, and died in 1675." (p. 22.)

To shew that there was a rapid increase of the disease, during the eighteenth century, in London, an abstract of the bills of mortality, from 1717 to 1776, is given; but these are not to be depended on, as in some of the years hooping-cough and catarrhal cough are mentioned as one disease. Its extraordinary fatality in Sweden is also noticed; in which country, according to Rosentein's statements, taken from the bills of mortality, "in the year 1755, 5832 children were carried off by this distemper." Our author supposes, "that next to the Small Pox formerly, and the Measles now, Chincough is the most fatal disease to which children are liable." (p. 25.)—Several authorities are quoted to prove the contagious nature of the disease, a fact which we believe is not now doubted; and a passage of a more questionable nature is quoted from a communication of Dr. Willey, in the American Medical Repository, which would prove that it is occasionally endemic, having appeared on Block Island, in April 1805, without any evident means of the contagion having been introduced.

Under the head, "Predisposition," a table of the deaths by Hooping-cough, in Glasgow, during the last thirty years, is given; from which it would appear, that the greatest fatality occurs in children above one year and under two years of age; but the table is defective, inasmuch as the relative numbers attacked by the disease, at the different periods of life, is not stated. In treating of "the influence of climate and season," Dr. Watt supposes, that the disease being less frequent, and also less severe in warm climates, "is probably the true cause why it was scarcely, if at all, mentioned by the ancients." (p. 32.) In this section a table, also, is presented, which renders it apparent that the mortality from the complaint is greatest in March, and least in July, August, and September: and a more correct statement follows of its influence on the sexes. "Of 43,393, who died of Chincough in Sweden," Dr. Rosenstien remarks, "21,543 were males, and 21,850 females;" and of 1817, who fell victims to its ravages in Glasgow, 842 were males, and 975 females. Our author does not attempt to

account for this difference; which, however, appears to depend on the same causes, which influence its effects on children, the greater degree of natural delicacy of the frame.

In describing the disease, Dr. Watt, pursues his division into sections, each of which is a commentary on some of its stages, or on some particular symptom. This method certainly has its advantages, and admits of greater detail than that which is usually adopted; but, we conceive, it would have been more satisfactory, at least to the student, if these commentaries had been preceded by a succinct and connected description; and for a most admirable model, the author need not have looked beyond Cullen's First Lines. As it is, we will examine each section, separately, and in its proper order of arrangement. The first describes *the early symptoms;* and as it is a fair specimen of Dr. Watt's style, we shall transcribe the greater part of it.

"The Chincough generally begins like a common cold, attended by more or less fever. The lips appear full, some degree of hoarseness and sneezing succeed, with a redness or turgescence of the face, and generally a watery irritating discharge from the eyes and nostrils. The patient has a greater disposition to sleep than usual; some difficulty of breathing or oppression about the chest, with a hard dry cough. The appetite is somewhat impaired, attended with a costive or irregular state of bowels. The patient complains more than usual of cold, particularly in the back and extremities. After some days the reverse of this takes place; he then complains of thirst, and a sense of heat over the whole body, the skin feeling harsh and dry.

"During the continuance of these symptoms there is occasional headach, the tongue is a little fouler and whiter than usual. The pulse is somewhat accelerated, and now and then irregular.

"This febrile state, which attends the commencement of chincough, resembles in many respects the fever which precedes the measles or the small pox. In some cases it is so mild, and continues so short, as hardly to deserve notice; in others, it is more protracted."—p. 35.

In the mild form it scarcely differs from common catarrhal cough, throughout; but, generally, as the febrile symptoms abate, the cough recurs in regular paroxysms; and in the intervals the patient feels himself nearly well. The febrile symptoms, however, sometimes run on, with a weak, quick pulse; the paroxysms are less regular; the patient is languid and oppressed in the intervals; the tongue foul; the appetite bad; the skin livid; and the strength rapidly declines. This form is more apt to affect the young and plethoric; and, Dr. Watt justly observes, "is often fatal; for the danger is not apparent, till it is too late for any remedy to be of service." —p. 36.

In the *Description of the Paroxysm,* the hoop, or peculiar noise, produced by the full and violent inspiration, is compared to "the crowing of a cock," or to that which occurs in "well formed croup." This comparison is far from being correct. The similarity of the cough of croup, to the first attempts of a young cock to crow, depends on the shortness, violence, and rapid succession of the expirations and inspirations through the straitened glottis; but in hooping-cough the inspiration taking place when the lungs are quite empty, is full and long, and resembles the suction or quick rushing of air, as our author himself observes, "through a narrow brazen tube." With regard to the nature of the hoop, Dr. Watt has observed, that it differs extremely in the young and plethoric, from that which generally occurs in the old and robust. In the first-mentioned set of patients,

"We have the hoop very long and distinct; but in these the expirations are less rapid and violent. The patient seems to gape and strain rather than cough. The face is dark coloured, the eyes are turned up, and there is generally a tendency to fainting or strangulation. In the other set of patients, the expirations are rapid, and so very violent, that, to use the common expression, they look as if they would burst. The face, in such cases, is of a bright carlet scolour, the eyes fiery, and as if they would start from their sockets; but the inspirations are performed as soon, and apparently with as much ease as if nothing were the matter." —p. 39.

That form of the paroxysm is, also, well described, in which there is gaping, with the appearance of sudden suffocation; and which, from the patient remaining long in this situation without making any noise, is emphatically termed, in Scotland, 'a *dumb* kink.' The hoop is said to occur seldom or never in adults, owing to the bronchial system being incapable, at this period, of taking on that morbid state on which it depends." We have, however, seen more than one instance, where it was fully formed, in adult females. No notice is taken that there is no particular period of the disease at which the hoop takes place: in some instances it is heard very soon; in others, not for months after the commencement of the cough. "In quodam puero," says Dr. Heberden, "tussis fuerat tres menses, priusquam hic sonus accessit*."

As to the *Recurrence of the Paroxysms,* Dr. Watt properly states, that their frequency depends on the mildness or the violence of the attack; and in particular instances, as in some cases mentioned by Hoffman, all the paroxysms occur at one

* *Commentarii de Morb. Hist.* p. 375.

time of the day, either in the morning, in the evening, or at midnight; and are periodical. During the fever, in the early period of the disease, the appetite is, consequently, impaired; but, after the fever abates, and particularly when the paroxysm terminates in vomiting, it is generally more craving than usual.

That three states of fever attend hooping-cough, is the fixed opinion of our author: a fact, which, although it must have attracted the attention of every observing practitioner, yet, has been hitherto overlooked by writers on the disease. The first accompanies the mildest cases; and is more of "the inflammatory than typhoid type; but is, perhaps," says the Doctor, "a sort of compound of the two." To us this passage is rather enigmatical. If synochus be the type meant to be expressed, we readily agree with Dr. Watt; but we can form no idea of synocha and typhus existing in the same person, at the same moment of time. The second state of fever is truly typhoid; the more remarkable symptoms being extreme quickness and feebleness of pulse. The third state is "decidedly characteristic of inflammatory action. The pulse is not so quick, but it is full and hard, attended with considerable difficulty of breathing, occasional pains in the chest, increased heat, loaded tongue, and all the other signs of pneumonic inflammation."—p. 56.

We certainly think Dr. Watt entitled to the thanks of the Profession, for having directed the attention of practitioners to these various shades of febrile action in hooping-cough. In our opinion, the causes of the variations are to be looked for in the peculiar states of the habit, at the moment of infection; but, be the cause what it may, much of the success in treating the disease must undoubtedly depend on accurate discrimination in this particular.

In the sections regarding the *State of Respiration; of the Head;* and of the *Stomach and Bowels*, some important observations are advanced. If panting follow very slight exertions, particularly if the pulse be at the same time much affected, there is always considerable danger. Our author believes, that there is, generally, a preternatural quantity of mucus formed in the stomach, independent of what is coughed up and swallowed; and observes, "it would appear that the secretions into the first passages are not only altered in quantity, but also in quality."—p. 62. Adding, that the torpidity and unmanageable state of the bowels, and the large quantities of flatus extricated in the stomach, which seems to encrease the severity and frequency of the paroxysms, may depend on this altered state of the secretion, an opinion which is highly probable. The affection of the stomach, we are well aware, has even induced some authors to regard that organ as the seat of the disease, "Tussis enim, partim saltem, est a stomacho," says Huxham, "ut monuit

olim *Waldschmidt*; nam vix unquam cessat tussis *convulsiva* paroxysmus antequam irritans Pituita tenax vomitu rejicitur*."

Among other symptoms indicative of danger, are noticed frequent micturition, the disappearance of cutaneous eruptions, hemoptysis to a considerable extent, a hard dry cough, and a dry itchy state of the nostrils. The fatality, also, may arise from other diseases being induced, especially in scrophulous habits; as, for example, tabes mesenterica, rickets, and phthsis pulmonalis. The complaint is generally mild and manageable in spring and summer, or very early in autumn; but the reverse in winter, or if the seasons should prove cold and wet.

Dr. Watt concludes the first division of his work by pointing out the *diagnostic symptoms.* He justly observes, that "there is hardly any disease for which chincough may be mistaken." (p. 76.) He thinks, however, that a convulsive cough described by Mr. Burns, and an epidemic peripneumy of children noticed by Dr. Cheyne, may be mistaken for chincough; and the disease thus be supposed to have occurred twice in the same person. We do not immediately recollect Mr. Burns' description, but suppose the disease to be the same as the spasmodic cough described by Dr. Underwood†; which certainly resembles hooping-cough more than any other disease with which we are acquainted. But the disease, which our author supposes to bear the most striking resemblance to hooping-cough, is *bronchitis*; and in support of his opinion, he has given an abstract of the symptoms of this disease, as detailed by Dr. Badham: it is chiefly, however, in the early stage of hooping-cough that the parallel between these two diseases is very striking.

The second division of the volume, *on the Nature of Chincough*, commences by a brief statement of the opinions both of the early and later writers in the disease, which are shewn to be jarring, often inconsistent with the symptoms, and in general far from being satisfactory. Willis and Sydenham "considered the chincough as chiefly seated in the chest;" Harvey, and several moderns, among whom is Dr. Butter, regarded it as an affection of the stomach and alimentary canal; and Astruc as an "inflammation of the superior part of the larynx and pharynx;" while Dr. Burton supposed it to arise from "too great a laxity in the body." Dr. Cullen placed the disease among the Spasmi, in his Nosology; Dr. Brown set it down decidedly as an asthmatic affection; which opinion, "or raving," as our author terms it, was repeated by his pupil, Mr. Jones;

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* Observationes de Aere, vol. i. p. 76.

† Treatise on Diseases of Children, 4th edit. vol. i. p. 323.

and Darwin regarded it as an inflammation of the mucous membrane of the bronchiæ and air cells.

Dr. Watt's own opinion is, that "chincough is in all cases an inflammatory disease, and that its chief seat is in the mucous membrane of the larynx, trachea, bronchiæ, and air cells." p. 191. With respect to the peculiar nature of the cough, he conceives any violent irritation of the mucous membrane will produce a convulsive cough resembling that of hooping-cough, without excepting even the hoop; and some cases, in which foreign matter entered the wind-pipe, are quoted in illustration of this fact. The cause of the irritation, and of the inflammation of the mucous membrane of the lungs, in hooping cough, he conceives to be an exanthematous eruption on the bronchial membrane, similar to those which cover the skin in the other exanthemata. This opinion is thus further insisted on, in the observations on the third of the cases, which make up the greater part of this division of the Treatise.

"Is it not possible, then, that there may be some eruptive disease of this membrane of the air cells and bronchiæ, so minute indeed as to escape ordinary observation, but so considerable as to excite that inflammation which is apparently the principal part of the disease?

"This hypothesis seems to receive support from a variety of circumstances, and particularly from this, that the disease almost always runs a sort of definite course. We may moderate the symptoms, but we can seldom or never cut them short. Even in those cases where a cure has been supposed to be [have been] performed at once, the patient has no doubt ceased to kink, but still he has had more or less of some pectoral complaint for several weeks."—p. 151.

After advancing some other arguments in favour of thi hypothesis, our author adds:

"One thing further may be urged in favour of this hypothesis, namely, the benefit which the patients generally experience from change of air, and from being almost continually without doors. This may have the effect of moderating the eruption, in the same manner as the free exposure of the body to the atmosphere, renders the eruption of the small pox more mild than it would otherwise be.—p. 153.

While we admit the ingenuity of this hypothesis, we do not consider it as altogether conclusive. Of the nature of the contagion we are as yet altogether ignorant; but it is more consistent, if we reason from analogy, to compare the effects of the virus of disease upon parts of a similar, or nearly similar organization, than upon dissimilar parts. Thus the virus of gonorrhœa produces inflammation of the mucous membrane of the urethra, and the virus of hooping-cough of the mucous

membrane of the bronchiæ; in the former case, also, the disease runs a certain course, if left to itself, yet there is no reason for supposing the existence of an exanthematous eruption. Why should we imagine the presence of such to be necessary in the latter? But this is the part of Doctor Watt's work, which we feel the least disposed to criticise.

With the cases and dissections we have been much pleased; and, as we conceive this to be by far the most important part of the volume, we recommend the study of it strongly to the junior branches of the Profession. Its novelty, indeed, is sufficient to recommend it; as, except some cases by Dr. Lettsom, in the Medical Memoirs of the General Dispensary in London, there are no other complete dissections of hooping-cough to be found in medical writings.

The most distinguishing peculiarities discovered by dissection, were indubitable signs of extensive inflammation having existed throughout the bronchial system. In all the cases, the exterior of the lungs was covered with whitish flat tubercles, as if some white fluid had been effused under the covering pleura. In one case the lungs were, also, of a purple colour; and in another they were motled with whitish ash-coloured, slightly elevated spots; and in some parts had the texture rather of liver or spleen than of lungs. Internally, the cells were filled with a whitish purulent looking mucus; which in some instances filled all the branches of the bronchiæ. The trachea itself, as far as the bifurcation, was generally painted with red vessels, and smeared with the purulent mucus as high as the thyroid gland. In one instance this mucus was more frothy; and in another the membrane had a reddish flocculent appearance, but there was no inflammatory exudation; and the minute bronchial ramifications were of a bright red colour. The stomach and intestines displayed, in the greater number of instances, evident traces of inflammation; and in the first case, that of Dr. Watt's son, there was an universal crust of lymphatic exudation over the whole of the stomach. In the third case, which was attended with convulsions, the head was opened, but there were no symptoms of any inflammatory action having existed in the vessels of the brain, nor were there any marks of disease discovered, further than a slight turgidity of the vessels of the membranes.

Each of the cases is followed by observations, both on the symptoms of the case, and the appearances presented by dissection. A parallel is endeavoured to be drawn between hooping-cough, croup, and bronchitis; but, we think it satisfactory, only inasmuch as all of these diseases are inflammatory affections of the mucous membrane, of the trachea and bronchial system; and perhaps, in a practical point of view,

this is sufficient. The inflammation, Dr. Watt supposes, begins in some cases in the bronchial cells, and extends to the trachea; in others it begins at the top of the trachea, and extends downwards. We are tempted to extract the following application of this doctrine to croup; as it satisfactorily explains two circumstances connected with the fatal termination of that disease, which has not hitherto been well understood.

"It has been remarked by some of the writers on croup, that, in various cases, the disease proves fatal without having any thing of the croupy voice, and yet the adventitious membrane is found in a more or less perfect state. In others, where the croupy voice was completely formed, it has gone off for some time before death, and yet the membrane was found entire. The present hypothesis explains both of these anomalies.

"In the first instance, the air-cells and bronchiæ were probably affected as soon, or sooner, than the trachea; hence the difficulty of producing a vacuum increased with the difficulty of admitting air, and thus, the one being always in proportion to the other, the patient might appear in danger of suffocation, but the symptoms of strangulation could never be the consequence. In the last instance, we have only to suppose the inflammation began at the wind-pipe, and gradually extended downwards. At the commencement of such a case, signs of strangulation would appear; because the cells would take in more air, in a given time, than the glottis could admit, hence the stridulous croupy sound in inspiration. But, by and by, as the disease extended downwards, and the accumulation of mucus took place, the difficulty of producing a vacuum came to equal or exceed the difficulty of admitting air, and then the croupy stridulous noise ceased, as the noise ceases on admitting air into the vacuum of an air pump, when the equilibrium is nearly restored."—p. 137.

We regret that our limits prevent us from making further extracts from this division of the work, which is replete with ingenuity and important observations: but we shall subjoin the *general conclusions* with which our author sums up the whole.

"It seems pretty clearly proved that chincough is in all cases an inflammatory disease, and that its chief seat is in the mucous membrane of the larynx, trachea, bronchiæ, and air cells.

"When it is mild, it may run its course, and cease spontaneously, without disturbing very materially the other functions of the body, or even the functions of that very membrane where it is seated.

"In some cases the inflammation, in its acute stage, is so severe and extensive in the mucous membrane, as to obstruct, if not wholly prevent, the objects of respiration, and thus proves fatal as it did in the third case. Such patients generally die convulsed.

" In other instances the inflammation proceeds to a more advanced stage, producing such a profuse and altered secretion of mucus, as to plug up the air cells and bronchiæ, and thus prove fatal by preventing the access of the air.

" Sometimes the inflammation, leaving the mucous membrane, extends to the deeper seated parts, and proves fatal in the form of ordinary pneumonia.

" In other instances, the pneumonic inflammation runs on to suppuration, and abcesses are found in different parts of the substance of the lungs.

" Sometimes the inflammation leaving the mucous membrane, and extending to the deeper seated parts, excites tubercles, and the patient dies, with all the symptoms of pulmonary consumption.

" There may be other ways in which the disease terminates, but these, at least, seem to be ascertained from the dissections given. On the whole I am disposed to conclude, that whenever chincough proves either dangerous or fatal, it is by the degree of inflammation, in the natural seat of the disease, or by the inflammation extending, or being translated to other parts."—p. 190.

The third division of the Treatise, *The Treatment of Chincough*, our author commences by some preliminary remarks, in which he notices the contrariety of practice which has hitherto been adopted for the cure of this formidable complaint, and very justly ascribes it to the subject not having been properly examined, and the real nature of the disease having been scarcely suspected. In no disease, indeed, with which we are acquainted, has there been so much countenance given to the pretensions of empiricism as in chincough; and some of the best informed physicians even have confirmed the confidence of mothers and nurses in these, by recommending the least hurtful of them, merely to gain time, and allow the symptoms to run their course, when they found that the complaint could not be checked at first. After stating the objections to the ordinary inclinations of cure, he lays down the following as those which ought to be kept in view in treating chincough.

" 1. The first indication is to see that all the different exertions be duly performed. A deficiency in any of them is sure to aggravate every symptom of the disease.

" 2. The second indication is to bring on, as easily and as speedily as possible, a moderate degree of expectoration. This seems to be the natural means of relieving the inflammatory affection of the bronchiæ; but it must be done by such measures as are least calculated to heat and irritate the general system.

" 3. As chincough is always of an inflammatory nature, the third indication of cure is to endeavour to prevent its becoming immoderate, and when it is already so, to endeavour by every means in our power to repress the disease, and restore the healthy action of the parts.

"4. But if the inflammatory affection has run too high, and the secretion of the mucus become too profuse, our object is then to aid the expulsion of what is already formed, and endeavour to regulate the formation of more."—p. 198.

We think it unnecessary to extract the fifth indication, which gravely inculcates the propriety of restoring the patient's strength as rapidly as possible, after the disease is subdued. The method here laid down is not pursued in the details of this division; a circumstance to be lamented, as it would have afforded an opportunity of more clearly pointing out the best plan of treatment, than that which the author has adopted. Each class of remedies is separately discussed in distinct sections; the effects of some particular medicines then examined; and lastly some hints offered as to diet and regimen.

The first section, on *The Use of Emetics*, contains nothing peculiar. Dr. Watt, who gives his testimony in their favour, prefers, for the purpose of procuring full vomiting, either a combination of ipecacuanha and tartar emetic given in the form of powder, or a solution of tartar emetic in the saline mixture, with an excess of acid. In this chemical age, we were rather surprized to find the following remark uncommented on. "One gentleman tells me, that he thinks the mixture (a solution of tartar emetic) greatly improved by adding a few grains of the carbonate of potass to each ounce of the solution." p. 207. Emetics, it is properly observed, are chiefly useful when followed up by *purgatives*; hence, in the next section, these are strongly recommended, particularly in the commencement of the complaint. Calomel combined with some antimonial, or in the event of the bowels being very torpid, with aloes, gamboge, scammony, or any other active cathartic, is preferred. With regard to *change of air*, of which the third section treats, Dr. Watt is of opinion, that no benefit can be derived from it, "when considerable fever, a strong, full, and frequent pulse, violent cough, pain in the breast, and, above all, great oppression of breathing," exist; but when these are absent, or removed, much good may be expected from a change to a purer air. In our own experience we have known instances, in which, while the above noted symptoms, with the exception of fever, remained, the greatest benefit was derived from a change of air.

In the fourth section, on *The Use of Bleeding*, after reviewing the opinions of authors from the period of Willis to the present time, and discussing the vague manner in which this practice has been recommended, the author points out the following as the indications requiring the abstraction of blood. When the pulse is small, hard, and remarkably quick, accompanied with difficulty of breathing, and incapability of exertion: when that state, which has been named *the dumb kink*,

occurs: and when there is a great determination to the head. Bleeding, however, is not to be regarded as a part of the regular treatment of chincough; but only to be had recourse to when the above symptoms, or others, "making congestion, increased action, or actual inflammation, in the head, chest, or abdomen," occur. The two next sections contain several judicious observations on the *Use of Blisters, Issues, Liniments, and Embrocations*; and, following these, are some curious remarks on the *Vapours of Tar*. This remedy was accidentally suggested to Dr. Watt; and he bears testimony of its efficacy when applied in proper cases, and at a proper period of the attack. If there be much fever present, it proves injurious; but if there be little fever, and the paroxysms be fully formed, its beneficial effects are very apparent. As no other writer has noticed this remedy for hooping-cough, we shall abstract the account of the mode of using it.

"This method of treatment is very simple. About a quart of tar is placed in the middle of a small room. This is stirred round with a succession of hot pokers till the fumes fill the apartment like a pretty thick fog. It is difficult to fix the criterion for this part of the process. I have generally made it so strong as to feel somewhat disagreeable to the lungs, but not more than I could bear without much difficulty for an hour. It very soon begins to affect the mucous membrane of the nose; and, however sound the lungs may be, to excite some degree of coughing. This is chiefly the case at first; after some time it becomes much more easy."—p. 267.

The immediate effects of this treatment is the expulsion of a great quantity of glairy, tenaceous mucus; after which the children sleep; and, on awaking, remain much more cheerful and comfortable for the remainder of the day. The fumigations may be repeated daily for four or five times; and then every second or third day, as circumstances may direct.

In the section on *Particular Medicines*, many sensible remarks are advanced on the utility of opium, peruvian bark, cantharides, assafœtida, hemlock, castor, musk, artificial musk, oil of amber, camphor, cup-moss, deadly nightshade, meadow narcissus, millipedes, alkalies, antimonials, acetate [superacetate] of lead, the arsenical solution, digitalis, nitrate of silver, and elder bark. In this copious list we are surprized that Dr. Watt has made no mention of the effects of nitrous gas; not that we have any reliance on its influence, but as he professes to give, not only the result of his own experience, but the substance of all that has been written on the subject by others, it ought to have come under his consideration. In Dr. Smyth's Essay on the Effects of Nitrous Vapour in preventing and destroying Contagion, *Appendix*, it is stated that three children

of Mr. Patterson, Surgeon to Forton Hospital, had been exposed, by their father, to the influence of this gas in a close room, when labouring under hooping-cough, with evident advantage: the disease having been rendered quickly milder, and its course much shortened.

In the observations *on Diet and Regimen*, which conclude the Essay, nothing new is advanced.

After having received considerable satisfaction from the perusal of the principal part of this volume, it is with regret we sit down to give our opinion of the Appendix, which displays an avidity for the publication of hypothetical opinions, very foreign from the character of a real medical philosopher. It is by the cautious, patient, and close investigation of the phenomena of diseases, and the causes producing them, or connected with their appearance, not in one situation only, but over an entire country, or a much wider extent, before general inferences are drawn from them, that medical science is to be benefited. To the opposite plan, that of forming hasty general conclusions from partial views, and from phenomena modified by local circumstances, much of the uncertainty of medicine may be attributed; and we lament to see so respectable a physician, as Dr. Watt is, fall into this error.

In examining the registers of the deaths in Glasgow for the last thirty years, with a view to ascertain the reasons of the varied fatality of chincough, Dr. Watt was surprised with observing the immense numbers that were carried off yearly by the small-pox, at the commencement of that period. In the latter part of the period, however, the decrease was as remarkable, particularly since the introduction of vaccination, little more than six hundred having died of the small-pox in eight years. But notwithstanding this apparent saving of infantile life by the diminished fatality of small-pox, the Doctor found, that nearly the same number of children died under ten years of age; and, that this proceeded from an increased fatality of measles. Having ascertained this fact, Dr. Watt conceived it to be necessary to point out its causes; and, to do this, formed the following hypothesis:—"That while the small-pox were in full force, they had the power of modifying and rendering the measles mild; and now that they are in a great measure expelled, the measles are gradually coming to occupy the same ground which they formerly occupied." (p. 378.)—"I have supposed," continues the Doctor, "that the constitution is improved by small-pox, certainly not by imparting a greater portion of health than was originally assigned to the individual; but perhaps by eradicating certain unobserved deviations from health, which if not early removed, by the accession of some

acute disease, would have proved the seed of early mortality, by gaining a deeper hold of the constitution before the measles and other epidemics, which are generally later in their appearance, come round." (p. 382.)—Or, in other words, that although vaccination has evidently very considerably diminished the fatality by small-pox, yet, that it has not actually diminished the number of deaths under ten years of age; and, that as it has not the power of modifying and rendering the measles mild, which small-pox possesses, the advantages derived from its introduction are more imaginary than real; because the increased fatality of measles has been sufficient to balance the saving from small-pox produced by vaccination.

These observations of Dr. Watt require to be examined in three different points of view; and suggest the following queries:

1. Whether his statements are accurate regarding Glasgow?

2. Whether, admitting their accuracy, the same circumstances have been found to exist in other places?

3. Whether it has been ascertained that those children who have been vaccinated, have had measles in a severer form than those who have had small-pox?

1. With regard to Glasgow, our author has drawn out a very accurate set of tables, for the last thirty years, in which the mortality of each month, arising from small-pox, measles, chin-cough, stopping, water in the head, teething, bowelhives, and fever, is distinctly exhibited. ' Each table shews, also, the number of still-births, the deaths under two years, from two to five, and from five to ten; and the total deaths of each year as obtained from the registers of burials, at the principal burying-grounds in the city of Glasgow and its suburbs. "The exact proportion which the deaths by each disease bore to the whole deaths in the registers, and what proportions had died under the ages of two, five, and ten years," are given in another table; in which the thirty years are divided into five equal periods of six years each, the three first of which "had passed before the vaccine inoculation could have had any influence; in the fourth it had nearly reached its maximum, and in the last it may be said to have been pretty fully established."—"The first thing," says Dr. Watt, "which strikes the mind on surveying this table, is the vast diminution in the proportion of deaths by the small-pox: a reduction from 19.55 to 3.90; but the increase in the subsequent column (that of measles) is still more remarkable, an increase from 95 to 10.76."—(p. 376.)

As we cannot present our readers with the whole of Dr. Watt's tables; and as without these his table of the proportions, which the deaths by each disease bore to the whole, cannot prove very satisfactory, we have drawn up the following

which gives the results of the whole of his tables, as far as concern small-pox, measles, and the proportion of deaths under ten years of age.

Years.	Deaths from all Diseases.	Deaths from Small Pox.	Deaths from Measles.	Deaths under 10 Years of Age.
1783	1413	155	66	719
1784	1623	425	1	877
1785	1552	218	......	744
1786	1622	348	2	941
1787	1802	410	23	1016
1788	1982	399	1	1059
1789	1752	366	23	958
1790	1866	336	33	1236
1791	2146	607	4	1367
1792	1848	202	58	892
Total	17606	3466	211	9809
Years.	**Deaths from all Dieases.**	**Deaths from Small Pox.**	**Deaths from Measles.**	**Deaths under 10 Years of Age.**
1793	2045	389	5	1126
1794	1445	235	7	759
1795	1901	405	46	1048
1796	1369	177	92	797
1797	1662	354	5	884
1798	1603	309	3	864
1799	1906	370	43	1005
1800	1550	257	21	746
1801	1434	245	8	766
1802	1770	156	168	985
Total	16685	2897	398	8980
Years.	**Deaths from all Diseases.**	**Deaths from Small Pox.**	**Deaths from Measles.**	**Deaths under 10 Years of Age.**
1803	1860	194	45	940
1804	1670	213	27	863
1805	1671	56	90	884
1806	1629	28	56	786
1807	1806	97	16	899
1808	2623	51	787	1775
1809	2124	159	44	1287
1810	2111	28	19	1027
1811	2342	109	267	1274
1812	2348	78	304	1278
Total	20184	1013	1655	11013

On glancing over the preceding table, as far as regards the comparative numbers carried off by measles in the three periods which it comprehends, the increase in the third period appears fully to authorise the conclusions of Dr. Watt with regard to the increased fatality of the disease in Glasgow; but when we examine the subject a little more closely, several circumstances present themselves, which induce us to consider this increase rather more apparent than real. In the first place we contend, that it is impossible, from these tables, to draw any accurate conclusion with regard to the increased fatality of measles, because we are not informed of the comparative prevalence of the

disease at the different periods, nor of the state of the weather during its appearance as an epidemic. If one death only should occur in ten cases of measles at one period, and ten in one hundred at another, no one will deny that the fatality is equal in both instances, although from the appearance of these numbers in different places of tables similar to those of Dr. Watt, an opposite conclusion might be warranted. Again, if in severe unfavourable weather the deaths from measles were more than doubled, the cause is evidently referable to the weather, independent altogether of the state of the constitution of those affected.

In the second place, in examining the table which we have drawn out, it appears that there is an increase of 187 deaths by measles in the second period, although vaccination could then have had no influence. Now, setting vaccination out of view, an increase in the third period to an equal amount must be allowed, supposing that there was no increase of population; but, as there was a very considerable increase of population, not only from ordinary causes, but also from the saving of infantile life by vaccination, instead of 187, we may reasonably allow an increase of 240, which would give 638 as the amount of the deaths in the third period by measles, if there had not been any increased fatality. But the deaths were actually 1655; to account for which, we must look to the two extraordinary epidemic periods of the disease, viz. in 1808, and about the end of 1811 and the beginning of 1812; which might have occurred if vaccination had never been discovered. In these two epidemics 1065 children were carried off by measles, whereas 100 only might have died had the disease not proved epidemic: if, therefore, the remainder 965 be added to 638, and the amount 1603 be deducted from 1655, the balance 52 may fairly be regarded as the real increase of fatality by measles in the last ten years; in which time the decrease of deaths by small-pox, in Glasgow, amounted to 1315. This unimportant increase may be easily accounted for, by admitting that the facilities for spreading contagion have multiplied in Glasgow during the last ten years: and that some circumstances exist in that city unfavourable to infantile life, is evident from Dr. Watt's table, by which it appears that there has been an increase of 2133 deaths under ten years of age; whereas in London the decrease in the same period and age was 8560.

2. With regard to the second query, we regret that our sources of information are very limited. In the general table of the deaths in London, within the bills of mortality, for the last thirty years, which we subjoin*, the increase of those by

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* We have copied this table from that given in the Appendix to Vol. IV. of the Transactions of the Medico-Chirurgical Society.

measles in the last period, although considerable, yet is not in a ratio equal to that of Glasgow. Indeed, if we make a moderate deduction for the epidemics of 1808 and 1810, the increase is not more than might reasonably be expected from the increase of population within the last ten years.

Years.	Deaths from all Diseases.	Christenings.	Deaths from Small Pox.	Deaths from Measles.	Deaths under 10 Years of Age.
1783	19029	17091	1550	185	9178
1784	17828	17179	1750	29	8123
1785	18919	17919	1999	20	8519
1786	20454	10809	1210	783	9638
1787	19349	17508	2418	84	8881
1788	19697	19559	1101	55	8307
1789	20749	18163	2077	534	9973
1790	18038	18980	1617	119	8573
1791	18760	18496	1747	156	9023
1792	20213	19348	1568	450	9456
Total	193036	182262	173037	2415	89671

Years.	Deaths from all Diseases.	Christenings.	Deaths from Small Pox.	Deaths from Measles.	Deaths under 10 Years of Age.
1793	21749	19108	2382	248	9456
1794	19241	18689	1913	172	9441
1795	21179	18361	1040	328	9216
1796	19288	18826	3548	307	10512
1797	17014	18645	512	222	7139
1798	18155	17927	2237	196	8719
1799	18134	18970	1111	233	7645
1800	23068	19176	2409	395	10058
1801	19374	17814	1461	136	8301
1802	19379	19918	1576	559	9176
Total	196581	187434	18189	2796	89663

Years.	Deaths from all Diseases.	Christenings.	Deaths from Small Pox.	Deaths from Measles.	Deaths under 10 Years of Age.
1803	19502	20983	1202	438	8222
1804	17038	21543	622	619	7481
1805	17565	20295	1685	523	8229
1806	17938	20380	1158	530	8256
1807	18334	19416	1297	452	8190
1808	19954	19906	1169	1386	9388
1809	16680	19612	1163	106	7608
1810	19893	19930	1198	1031	9133
1811	17042	20645	751	235	7398
1812	18295	20404	1287	427	8198
Total	182241	203114	11532	5747	81103

By this table the average of the deaths by measles in London, for the last ten years, is evidently very inferior to that of Glasgow, which, as far as our information extends, much exceeds most other places. In the large charitable institutions for the support and education of children in London and its vicinity, we have authority for asserting, that measles have not been more fatal in proportion to the numbers attacked by them since the introduction of vaccination, than prior to that period. As an example, we state, that in Christ Church Hospital, measles prevailed in Sept. 1807, July 1810, and Sept. 1812; the total number affected was 103; out of which there were no deaths immediately arising from measles, although three died of croup, upon the termination, or as a sequela of the disease*. In the Royal Military Asylum, also, the mortality has been comparatively trifling†.

3. In answer to the query, Whether patients "who have been vaccinated have had measles in a severer form than those who have had small-pox?" we would answer, that our own experience, and that of many other private practitioners, leads to the conclusion, that they have not been more severe; but the most conclusive answer, as far as it goes, is that afforded by Dr. Stanger, who ascertained, by referring to the records of the Foundling Hospital, that out of 130 patients who had been vaccinated, and afterwards had measles, two only died; while of 131 who had small-pox, and afterwards were attacked by measles, eleven died. Perhaps, however, on this part of the subject, more information is still required to enable a correct opinion to be formed; and we trust it will soon be furnished. In the opinion which he has promulgated, Dr. Watt seems indirectly to support the doctrine of the older writers, that small-pox and measles are modifications of the same disease, an opinion which was maintained till the seventeenth century‡; but is now completely renounced.

But the most injurious conclusion drawn by Dr. Watt from the Glasgow tables is, that the deaths under ten years of age have not been diminished by the removal of small-pox; and that population has not been increased by that event. How

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* This statement is given on the authority of Mr. Field, Apothecary to the Hospital.

† On the authority of Mr. MacGregor, Surgeon to the Institution.

‡ See *Sennertus Med. Prac.* lib. iv. cap. 12.—*Diemerbroeck Tract. de Variolis et Morbillis*, cap. 14.

little this assertion accords with the fact in London, and some other quarters, can easily be displayed. The London table states the decrease of deaths under ten years of age, during the last ten years, to have been 8,560; and the total decrease of deaths in the same period, 14,340. Vaccination was introduced into the Russian empire in 1804; since which time to 1811, the number vaccinated was 1,235,637; which, according to Dr. Crichton's calculation, produced a saving of lives of 176,519 children to Russia, in seven years*; supposing that every seventh child died annually of small-pox, prior to the introduction of vaccination. At Rouen, in Normandy, the diminution of deaths in eight years, after the introduction of vaccination, was 4,354; at Toulon in five years it was 904; and at Bensançon in nine years 1,619. It would be easy to multiply statements of this kind; but those we have given are sufficient, we trust, to warrant the strictures we have passed on Dr. Watt: and, as we have already exceeded our limits, we must refer such of our readers as feel interested in the prosecution of the subject, to the Report of the Central Vaccine Committee on the Vaccinations performed in France in 1810†.

Upon the whole, setting apart the Appendix, we regard this as a work of considerable utility to the junior members of the Profession, who have little time for the perusal of a multitude of books. It is, however, as we have already hinted, ill written; and contains numerous specimens of bad taste and inattention; as a proof of which, the following have been indiscriminately selected from among a great number which we had marked in passing through the volume:—"*settled* [resolved] every doubt in his mind:"—"*continues so short:*"—"*bursting kinks:*"—"If any *thing* [stool] was procured:"—"blister applied to her *breast:*" [chest]—"*making it worse:*" [becoming worse].—The next example is affected:—"The passage through the windpipe was perfectly *patent:*"—and the following is a complete Scotticism:—"even to stand on her *own legs!*"

These are faults easily avoided; and we notice them more with the view of directing Dr. Watt's attention to the improvement of his style, than from a wish to appear critically acute.

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* See *Report of the Vaccine National Establishment. April* 1813.

† *Rapport du Comité Central, sur les Vaccinations pratiquées en France pendant l'année* 1810, 8vo. à Paris, 1812.

II.

Ausführliche Darstellung und Untersuchung der Selbslverbrennungen des menschlichen Körpers, in gerichtlich-medizinischer und pathologischer Hinsicht.—An Inquiry into the Spontaneous Combustion of the Human Body, as it regards Pathology and Forensic Medicine. By John Heinrich Kopp, M. D. Professor of Chemistry at Hanau. 8vo. pp. 84. Frankfort on the Main, 1811. Imported by Callow.

This little Treatise is published with the laudable view of exciting attention to Spontaneous Combustions of the Human Body; and especially, as being necessarily subjected to juridical investigation. Among the numerous instances of dubious death, Dr. Kopp points out that arising from spontaneous combustion as most deserving the attention of the Faculty, in order to prevent the magistrate giving an unjust decision on erroneous medical evidence. Seventeen authenticated cases of this kind of combustion are related. Sixteen of these occurred to females, and the seventeenth to a man. This last has the peculiarity of the person surviving the accident three days, and of his being able to give some account of the circumstances and sensations by which it was accompanied. The singularity of this case induces us to give a translation of it; but we regret that it did not come under the immediate observation of Dr. Kopp: it is cited by him from a Florentine Journal*, in which it was inserted by Joseph Battaglia, a Surgeon at Porte Basto, who attended the patient.

"Don G. Maria Bertholi, a priest, who lived on Mount Volere, in the neighbourhood of Fivizzani, went on business to a fair at Filetto. After having walked about the whole day, he went, toward evening, to Fenile, and put up at a relation's. Immediately after his arrival, he retired into his bed-room, and desired to have a handkerchief placed on his back, under his shirt. In a few minutes after this, being left by himself, a singular noise, mingled with cries, was heard from his bed room. The people of the house rushed in, and found the priest stretched on the floor, surrounded by a small lambent flame, which retired as the persons approached, and at length entirely vanished. He was immediately put to bed, and the next morning," says Battaglia, "I visited him. On a careful examination, the integuments on the right arm were found

* Or rather from the Allgemeine Litteratur Zeitung, 1786, B. iij. No. 220. S. 527 and 526; where the authenticity of Bertholi's case is fully admitted.

loosened from the muscles, and hanging down. Between the shoulders and thighs the integuments were equally injured. An incipient mortification appeared on that part of the right hand which had been most injured. On the second day, this part was in a complete state of gangrene. On the third day, the mortification had extended to all the injured parts. The patient now had excessive thirst and fever, violent convulsions, putrid evacuations from the bowels, constant vomiting, and delirium. On the fourth day, after lying two hours in a state of torpid sleep, he expired. At my last visit, during this course, I (Battaglia) saw with astonishment that the putrescence had already made rapid advances; the body of the patient emitted a most insupportable stench; worms were seen crawling from him; and the nails fell from his fingers. To the question how this accident had happened, the patient answered, that he first felt a blow, as with a club, on his right arm, and had observed, at the same time, a spark hanging to his shirt; and that the latter had in a moment been converted into ashes. The handkerchief, which had been placed on the bare skin of the shoulders, was found entire, and not even scorched. The drawers he had on were also left untouched, but the night-cap was quite consumed, though not a hair of the head was burned. That this diffused fire had consumed the skin, the shirt, and the whole night-cap, without touching the hair, is a fact I (Battaglia) can fully warrant.

"The night, on which this phenomenon happened, was calm, and the air clear. Not the least empyreumatic smell, nor the least trace of fire or smoke was perceived in the room. The lamp, previously filled with oil, was dry, and its cotton incinerated. No external cause can, with probability, be assigned for this deplorable accident: if *Maffei* had still been alive, he would have availed himself of it as a plain proof that a lightning proceeds from within, and destroys us."

Upon this narrative, by Battaglia, Dr. Kopp observes, that it is doubly instructive—it befel a monk—and the patient was able to give an account of the origin and progress of the combustion, which was evidently connected with electricity.

It has been admitted as a fact, that this form of spontaneous combustion belongs exclusively to the female sex: but the preceding case is an exception to this assertion. Why it recurs to the female only, Dr. Kopp endeavours to explain, by referring to the softness and laxity of the skin and cellular substance of women, and to a disposition in the female system to secret fat.

Among other opinions which this author cites, as tending to explain the cause of spontaneous combustion in the human

body, he quotes that of our countryman, Dr. Beddoes, of the combustibility arising from the frequent drinking of spirits. This hypothesis, however, he refutes, by observing, that it is inconsistent with sound pathology, to assume that alcohol, in an unaltered state, can assimilate with the living organic mass; and he endeavours, by the assistance of chemistry, to give a more rational explanation of this phenomenon. In the advanced period of life at which it only occurs, the vital principle, he asserts, being deprived of a portion of its activity, the system then has a tendency to generate hydrogen gas, which easily penetrates the soft parts, and is suddenly ignited, either by an electric spark issuing from the body itself, or by an adventitious one applied *ab extra*. The former, however, he is most disposed to adopt, on the well-known fact of some individuals emitting electric sparks from their skin, excited by the mere friction of their clothing.

The spontaneous combustion of the human body, we have long been disposed to view as one of those philosophic delusions which men fall into from the imposing nature of the thing itself, and its appearance of ready solution on the principles of a fashionable and fascinating science. We confess that Dr. Kopp has not entirely removed our scepticism. Yet the relation of the case of a man who was half consumed by an internal fire, survived the accident near four days, and was able to give an account of the symptoms, brings this phenomenon much nearer to a rational truth than any fact which had before fallen under our observation.

III.

Official Papers relating to Operations performed by order of the Directors of the Royal Hospital for Seamen, at Greenwich, on several of the Pensioners belonging thereto, for the purpose of ascertaining the general Efficacy of the New Modes of Treatment practised by Mr. Adams, *for the Cure of various species of Cataract, and the Egyptian Ophthalmia.* Published by order of the Directors. 8vo. pp. 21. Winchester, London, 1814.

In the number of our Journal for January last, we had occasion to state, as an article of intelligence, a series of operations for Cataract, performed with extraordinary success by Mr. Adams. The above official papers, describing in detail the results of these operations, though they do not include

any description of the methods employed, demand our notice, inasmuch as they may lead to an investigation of a practice, the success of which is indubitably established on the evidence of the physician, surgeon, and apothecary to the Royal Hospital of Greenwich, and fully admitted by the Directors, Lords Hood, Auckland, &c. who order this their Report to be published.

It appears, by tables inserted in this pamphlet, and authenticated by the signatures of R. Robertson, Physician; B. M'Laughlin, Surgeon; and M. S. Kent, Apothecary, the medical officers of the Royal Hospital of Greenwich, that of twenty-four cases of cataract, for which the operation of extraction had been performed on pensioners now in the Hospital, previous to the employment of Mr. Adams, in one case only was that operation, so performed, successful: that of thirty-one cases treated by Mr. Adams, with methods, at it is stated, peculiar to himself, twenty-nine were completely successful. The extraordinary contrast here exhibited, and authenticated by the medical officers of the establishment, is surely calculated to excite the attention of the Faculty; to rouse inquiry; and stimulate to the study of the structure, functions, and diseases of the organ of sight.

It seems, by a letter from Mr. Adams, contained in this pamphlet, that, on a former occasion, his instruments and his operation for the cure of soft cataract, and his successful revival of an obsolete operation for artificial pupil, had, by other persons, been unfairly claimed. To prevent this in the present instance, Mr. M'Laughlin, the Surgeon, was requested to record on the hospital books the different stages of the operation for the removal of hard cataract, as he had seen it performed on the pensioners. Notwithstanding it is evident that Mr. Adams intends, for the present, to conceal this operation from the Faculty at large, a hope is held out, that he will himself hereafter fully explain it: and it appears that he has already freely demonstrated his practice (p. 9.) to the physician, surgeon, and apothecary of the Hospital. Although we are enemies to the concealment of facts and improvements in science; yet we must acknowledge there is some shew of reason on the part of Mr. Adams, for adopting such measures as may prevent an anticipation of his discovery; taking it for granted, that he means himself, at a fit opportunity, to lay it before the public.

PART IV.

SELECTIONS.

Charter *of the* College *of* Physicians, *granted by Henry the 8th, and confirmed by Parliament, in the 14th Year of his Reign.*

Henry, by the Grace of God, King of England and France, and Lord of Ireland, to all, whom these letters may come, Greeting:

Whereas, considering it to be our kingly duty to provide in every way for the welfare and improve the condition of our subjects, we judge that this object will be fulfilled by defeating the attempts of the dishonest: We have, therefore, thought fit to repress the audacity of those unprincipled men, who practise medicine rather from avarice than the confidence of a good conscience, whence many evils may arise to unlearned and credulous persons:

Therefore, partly from imitation of the example of well constituted cities in Italy and many other nations, and being partly influenced by the representations of those sedate and learned men, John Chambre, Thomas Linacre, Fernandus de Victoria; our physicians, Doctors Nicholas Halswell, John Fraunces, and Robert Yaxley; and particularly of our Reverend Father in God, Thomas, elder cardinal of St. Cecilia, beyond the Tiber, of the most holy Roman Church, Archbishop of York, and Chancellor of our Kingdom of England; We will and command, that there be a perpetual College of sedate, learned men to practise Medicine in our City of London, its suburbs, and within seven miles thereof; to whom We hope it will be considered a duty, for the sake of their own honour as well as the public good, to immediately repress by their example the ignorance and temerity of the daring, whose actions we have mentioned, and, likewise, by virtue of our laws lately made, and the bye-laws about to be made by the College, to punish them.

We have, therefore, ordained that the before named learned men, John Chambre, Thomas Linacre, Fernandus de Victoria, our physicians, Nicholas Halswell, John Fraunces, and Robert Yaxley, Doctors of Medicine, and all men of the said City, be, in name and in fact, one Body and Perpetual Commonalty, or permanent College, and that the said Community or College, every year, for ever, may elect out of that Community a fit person, well skilled in the faculty of Medicine, and appoint him President of

the said College or Commonalty, to supervise, superintend, and, during that year, to govern the said College or Commonalty, and all men of that faculty and their affairs.

And that the said President and College or Commonalty, have perpetual succession, and a common seal to be always used in the transactions of the said Commonalty and President.

And that they and their successors for ever be persons capable and competent to purchase and possess, in fee and perpetuity, lands, tenements, rents, and every other kind of property whatsoever.

We have also, for ourselves and our heirs, granted to them and their successors power to purchase for themselves and their successors, as well within as without the said City, any kind of lands and tenements whatever, not exceeding the annual value of twelve pounds, notwithstanding the Statute of Alienation in Mortmain.

And that they, by the name of the President of the College or Commonalty of the Faculty of Medicine in London, may sue and be sued, before any of our Judges in every kind of action and in every Court.

And that the said President, College, or Commonalty, and their successors, may lawfully and safely have, at such times and in such manner as occasion may require, lawful and honest meetings, statutes, and ordinances, for the well governing, supervising, and regulating of the affairs of the College or Commonalty of the said Physicians, and of all persons exercising the same faculty in the said City, or within seven miles around the same, without hindrance from Us, our heirs or successors, Justices, Sheriffs, or other Bailiffs or Magistrates of our heirs or successors whomsoever.

We have also granted to the said President and College or Commonalty, and their successors, that no one shall exercise the said faculty in the said City, or within seven miles round the same, unless he be admitted so to do by the said President and Commonalty, or their successors, for the time being, by letters of the said President and College, signed by their common seal, under the penalty of five pounds for each month which they have so practised without having been admitted: one half to be given to Ourselves and our heirs, the other half to be applied to the use of the President and College.

We, moreover, will and grant, and for Ourselves and successors, as far as in us lies, that four persons be yearly chosen by the President and College of the said Commonalty for the time being, and their successors for ever, who shall have the superintendance, scrutiny, correction, and government of all and every Physician of the said City, exercising the faculty of Medicine in the said City, and of all other Physicians not members of this Commonalty, who, in any wise practise the profession of Medicine within the said City, suburbs, and seven miles thereof; and also shall have the punishment of such persons for their faults in not duly exercising, performing, and practising it; and also the superintendance and scrutiny of medicines of every kind, and the receipts for compounding the same, which may be given, applied, and used by the said Physicians, or any one of them, to our liege subjects in the curing their

complaints and infirmities, as often as and whensoever there may be occasion for the utility and advantage of our said liege subjects: so that punishment of such Physicians exercising the faculty of Medicine, who shall so offend, be inflicted by fines, amerciaments, and imprisonments of their bodies, and by other reasonable and suitable means.

We also will and permit, for Ourselves, our heirs and successors, as far as in us lies, that neither the President, nor any one of the said College of Physicians, nor their successors, nor any one of them, in any way exercising the faculty of medicine in future within our City and the suburbs thereof, or in any other place, be summoned or put, nor shall any be summoned or put on any assizes, juries, inquests, inquisitions, attaints, or other recognitions, within the said City and its suburbs, before the Mayor or Sheriffs, or Coroners of our said City for the time being to be hereafter taken, or by any officer or assistant, or officers or assistants of theirs, to be summoned, notwithstanding the said juries, inquisitions, or recognitions may have been summoned upon our or our successor's writ or writs of right: but that the said Masters, or Governors and Commonalty of the beforementioned faculty, and their successors, and every one of them exercising the said faculty, be thereof quit and for ever exempt, by these presents, as towards Us, our heirs and successors, and towards the Mayor and Sheriffs of the said City for the time being, and their officers and assistants whomsoever.

Provided always, that our letters, nor any thing therein contained, be not to the prejudice of our City of London, or its liberties; and these without fine or fee for the premium aforesaid, or the sealing of these present letters; any statute, ordination, or act hitherto made to the contrary in any wise notwithstanding.

In testimony of which we have caused these our letters to be made patent. Witsess Ourself at Westminster, on the twenty-third day of September, in the tenth year of our reign.

TUNSTALL.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

Lecture xi. *At Apothecaries Hall. On Digestion and Perspiration.* By Professor Brande.

ON DIGESTION.

Our knowledge respecting digestion is still extremely imperfect. The necessity of food is sufficiently established, and Physi-

ologists have entered largely into the consideration of the quantity required for the support of different animals. But the subject abounds in difficulties. Animals in a state of domestication probably eat five times as much as is necessary. The most active require the greatest proportion of food. It has been correctly ascertained, that a certain stimulus is indispensable to the stomach. Every change of food appears to excite a fresh stimulus; and we find we may eat, and indulge more in a variety, than when one substance only is taken into the stomach. This is more particularly the case, where persons do not take exercise: the stomach must then be assisted by what are termed stomachics; and various light tonics, such as bitters, &c. are resorted to.

All aliments intended for the nutriment of the body are, when received into the stomach, converted into a soft pappy matter, called chyme. Some food undergoes this change much more easily than others; yet chyme has always nearly the same appearance, and soon acquires the same consistency in the stomach, whatever quantity of liquid has been taken with the solid.

Physiologists were a good deal perplexed to account for these changes; but they have been much elucidated by the experiments and observations of Sir Everard Home, who has observed, that the human stomach is occasionally divided by a muscular contraction into portions. The left, or cardiac, portion first receives the food, and in it the process of digestion begins.

The spleen was supposed to be the channel by which fluids pass off from the cardiac portion of the stomach. To prove that a connexion between the spleen and the stomach existed, large quantities of a coloured fluid were thrown into the latter, and the spleen became very turgid, and partook of the colour of the substance so injected. Rhubarb taken into the stomach imparts its colour to the spleen and to the urine in a very short time. Yet it is certain that the spleen is not absolutely requisite for these purposes; for a man received a considerable wound of the spleen, and did not suffer by its loss. Dogs have had it extirpated, and yet the same ready passage of the colour to the urine took place.

An animal had rhubarb given to it, whose thoracic duct was tied on one side, and on examination it was found the urine was coloured. It was tied on both sides, and yet the fluid passed to the kidneys. Hence it appears that the spleen is not the passage through which fluids pass from the stomach into the circulation. It seems that the function of the cardiac portion of the stomach is, to separate water from food, and to reduce it to a proper consistency; and that the pyloric is to receive it in this state, to render it perfect chyme, and to pass it into the intestines.

It is a question of great intricacy, how the change of food into chyme is accomplished. It has been ascribed to mechanical action, and to fermentation, but neither opinion is supported by facts. One fish will swallow another, and that part that is in the stomach will be digested, while that which still remains in the œsophagus, is

not changed. An owl swallows a mouse by degrees, and that part only is digested which is in the stomach.

At length, a curious fact, the discovery of which is due to John Hunter, attracted the attention of Physiologists. Stomachs were found after death partly digested. This was ascribed to the operations of the gastric juice. Many experiments upon the nature of this fluid were made; but there was some difficulty in procuring it in a pure state, or in sufficient quantity. Animals were suffered to fast, and vomiting was excited; but this was a very unsatisfactory way. Some were killed; still it was the same. Pieces of sponge were swallowed to sop up the juice, and in this manner a quantity was obtained upon which many experiments were instituted. But the difference of opinions, and reports of this secretion were very contradictory; one represented it as sour as verjuice; a second, that it was sweet as sugar; and a third, that it was bitter as bile. The analysis from the varieties procured from various subjects proved little. Mr. Gosse possessed the power of producing the contents of his stomach when he pleased by swallowing air; but the juice could never be obtained sufficiently pure by this or by any mode suggested. Accordingly Physiologists, finding it impossible to examine it with accuracy, turned their attention to its effects on food. Metallic tubes, perforated and filled with food, were introduced into the stomach; and after remaining there a time, were examined. Grain was found to be soon digested; calcareous substances were quickly dissolved by graniverous animals, but not by carniverous animals; the animal part of bones was digested, the earthy part remained unaltered; substances not minutely divided, required the most time. Hence it is manifest, that very strong stomachs are necessary to digest food not well masticated; therefore the custom, called bolting, which sometimes prevails, must prove very injurious.

The most remarkable property of the gastric juice is, that of coagulating; and this it possesses whether it be within or out of the stomach. Milk is immediately turned by a very small quantity of it. A child always throws off milk coagulated. This coagulum is by degrees dissolved in the stomach, and becomes chyme.

For other information of the change chyme undergoes, Mr. B. referred to Sir E. Home's lectures.

If we pursue the subject, our evidence now becomes a little more clear.

When chyme first enters into the duodenum, it assumes another appearance, and, mixing with the bile, is changed into chyle and excrementitious matter. The chyle is taken up by the absorbents and carried into the thoracic duct, and there mixing with the lymph, secreted by the lymphatic vessels, is conducted into the circulation, and becomes the sanguiferous fluid. Chyle is not unlike milk, and is sweet to the taste. It will coagulate, and in this shews one of the characteristics of blood; but the coagulum resembles exactly neither that of blood nor of milk, but is something between the two.

The use of bile combining with the chyme, is to facilitate its separation into chyle and excrement, and to stimulate the intestines to its propulsion and final expulsion from the body.

It has been supposed, that it was the resin contained in the bile that stimulates the bowels; but unfortunately for this doctrine, when the ductus choledochus is impeded, the same operation goes on, which proves, that the bile is not absolutely essential to this purpose.

The colour of rhubarb is shewn in the urine in a few minutes after it has been received into the stomach; a short time afterwards the colour is lost, and in four or five hours afterwards it re-appears. Hence it may be inferred, that the small intestines do not deliver the colour so soon as the stomach and colon.

What the peculiar operation of the colon is we know not; but it clearly performs some function of which we are ignorant. Fat is supposed by Sir E. Home to be formed in the colon, and occasionally a spermacceti like substance is there found. The fattest animals always have the largest colons.

Such then is our present information respecting this intricate function:

The food being duly masticated, and mixed with a considerable proportion of saliva, passes into the stomach, and immediately undergoes a change; the excess of fluid matter is, if necessary, carried off, and when the food has arrived at the pyloric portion of the stomach, it is of an uniform consistency, and has acquired a nauseous taste and smell; in this state it has been called *chyme*. In the duodenum, the chyme mixes with the bile, and separates into two portions: the one, a white and spontaneously coagulating fluid, called *chyle;* the other, a semi-fluid matter. The former is absorbed by the lacteals, and mixing in the thoracic duct with the lymph, is delivered into the venous circulation chiefly at the junction of the left subclavian and carotid veins. Here it is carried through the lungs, and, by a process which will form the subject of my next Lecture, becomes converted into blood. The latter, as it passes through the small intestines, becomes more and more indurated, and at length converted into excrement; but before this is voided, it probably undergoes some further change in the colon, as I have endeavoured elsewhere to explain.

These functions are so important in themselves, and so intimately connected with the operation of a variety of medicines described in the earlier part of the Course, that all medical practitioners should know how far they have been philosophically investigated. On these difficult subjects our information is limited and imperfect, but that which has been ascertained, opens new views to the physiological inquirer, and promises to throw some light upon the modus operandi of various and powerful remedies.

ON PERSPIRATION.

There is another function, namely, Perspiration, which has been the subject of much investigation by different Physiologists. Many experiments, to ascertain the quantity of matter perspired through the skin, have been made, particularly by Sanctorius, who continued them for thirty years. More recently Lavoisier and Seguin instituted some very ingenious experiments in elucidation of this subject. Seguin was inclosed in a silk bag with a slit for the mouth, to which it was cemented; so that every thing was confined within the bag, except what passed off by the lungs. By weighing himself in a delicate balance at the beginning of the experiment, and again after he had been some time in the bag, he ascertained the loss by perspiration. By weighing himself without the bag, and repeating the operation after the same interval of time had elapsed as in the former experiment, he found the loss of weight by perspiration and respiration. By subtracting from this sum the loss of weight indicated by the first experiment, he obtained the quantity of matter which made its escape by perspiration in a given time. The following were the facts he ascertained.

That the greatest average loss by perspiration in twenty-four hours was fifty-two ounces, Troy—it was increased by drink, but not by solid food—at its minimum after a repast—at its maximum during digestion. The quantity perspired is greatly increased by heat, whether directly applied, or induced by exercise.

The substances constantly perspired are water, carbon, an oily matter, and occasionally phosphoric acid, phosphate of lime, and urea.

Water exudes from the pores of the skin by insensible perspiration, or by sensible perspiration, or sweat. According to the experiments of Mr. Cruikshanks, the insensible perspiration in twenty-four hours is, 7lb. 6 oz. Troy. Though sweat is increased by heat, yet, as it evaporates, it cools the surface of the skin. It is the production of heat that gives out these vapours from the fluids of the body; and as they are evolved, its temperature is lowered. It is from this operation that we are enabled to bear degrees of heat so much above the natural temperature of our bodies. Dr. Fordyce illustrated this by going into a room heated to 212°: he felt no particular inconvenience in breathing, though every substance around was so heated that upon the application of his hand to any good conductor of heat, it was burned.

Carbonic acid is largely evolved by perspiration; but the quantity of air does not increase; hence oxygen is probably absorbed as the carbonic acid is thrown out.

Oily matter is given out with the perspiration, and has been collected and examined by Mr. Cruikshanks. It has a peculiar odour, and it is by this scent that animals are able to distinguish the objects of their pursuits, and that dogs discover their masters.

Phosphoric acid has been supposed to exist occasionally in perspired matter; Vauquelin at least suspects this, for he found a

fixed acid occasionally evolved. Besides the above, a scurfy matter is formed on the skin of many quadrupeds, and on that of some birds, which has been ascertained to be composed of phosphate of lime, and in some instances to contain a matter analogous to urea. Hence it appears that the function of the skin is in many respects analogous to that of the lungs, as I shall endeavour more fully to explain in the next Lecture; for in both cases, carbonic acid and water are evolved and oxygen absorbed.

Some have doubted whether the skin does absorb. In favour of it, it is stated, that sometimes the quantity of urine passed, is greater than the whole ingesta of solid and liquid food, as in diabetes. But it should be recollected, that in this disease the solid matter of the body is constantly consuming, and may be converted into urine.

Captain Bligh, ordered his companions, when deprived of fresh water, to bathe in the sea, and it always allayed their thirst and cooled their bodies. Here we might have presumed, that absorption must have taken place, as thirst was allayed by the application of water to the skin; but this effect may be accounted for by the collapse of the outer vessels of the skin; and it should be remarked, there was no increase of weight. Dr. Currie had a patient with stricture of the œsophagus, which prevented his swallowing, and his thirst was always alleviated by bathing; but no increased weight could be detected after coming from the bath. Seguin observed, that no effect was produced on a person that he submitted to a bath in which some mercurial salt was dissolved; but when a part of the skin was abraded, the effects of mercury on his constitution were evident.

Though these experiments appear decisive, that the skin cannot absorb water while in the fluid form, yet it does not follow that it may not be absorbed in the form of vapour; or that air may not be absorbed. Van Mons kept a patient alive for many days, who could not swallow, from a wound in the throat, by applying to different parts of the body with a spunge, strong soups, or wine. But Dr. Watson's experiment is more conclusive of the fact of absorption. A Newmarket jockey, that had been sweated down to a weight to qualify him for riding a race horse, was weighed on the morning that he was to ride; he was weighed also an hour after the race, and was found to have gained thirty ounces of weight. In the interval, he had drank but half a glass of wine.

Hence Mr. B. thinks, that the doctrine of absorption by the skin was just, although further experiments were required to establish this point upon satisfactory evidence.

ORATION *at the* ANNIVERSARY *of the* MEDICAL SOCIETY *of* LONDON, *March* 8, 1814.

THE functions of three most important organs of the human body, the brain, the lungs, and the stomach, made the subject of this Oration, delivered by DR. GEORGE REES. The influence of

the nervous energy on respiration, and on digestion, and the reciprocal action of these functions on the brain, were discussed with considerable physiological acuteness. A perspicuous view was taken of the chemical doctrine of respiration, with the production of animal heat; and pathological inferences were deduced from the imperfect action of the lungs loading the system with carbon. The process of digestion was endeavoured to be explained in somewhat a novel manner, but, perhaps, not with much success; owing partly to the obscurity of the subject, and partly to the incomprehensible nature of the principle evolved, by this action of the stomach. According to this hypothesis of Dr. Rees, the nutriment being comminuted and broken down in the stomach, the principle of vitality is separated and passes into the system. The opinion of the Orator, that modern theory and practice attributes too much to a disordered state of the liver, was enforced with considerable effect; and the too general use of mercury, upon the notion that some disturbed state of that viscus and of biliary secretion, is an extremely common occurrence, was combatted in a manner that manifested considerable acquaintance with the subject, and a close attention to the phenomena of diseases. It was urged that a primary morbid condition of the lungs was often referred to the liver, and, on this mistaken view, being followed by a course of mercury, much injury was done to the constitution. The disposition to phthisis, tuberculated lungs, and hœmoptöe, were investigated; and the mischievous effects resulting from a mechanical cause, the deposition of particles of dust in the air-cells, arising from various materials, especially among bakers, grinders, needle-makers, &c. were explained. The nature and treatment of hœmoptöe were examined with particular attention, and venesection, in that state of the lungs, forbidden. Gentle aperients, cool air, and especially emetics, were recommended, but not on theoretical grounds; for Dr. Rees asserted the efficacy of emetics on his experience of nearly two hundred cases of that disease. Many varieties of cutaneous defadation were referred to an impaired respiration confining carbon; which not being thrown off by the lungs in due proportion, passed to the exhalents of the skin, and there produced these morbid effects. The hypothesis that the imperfect or impaired action of the lungs determined carbon to the skin, gave occasion to the Orator to state that some peculiarities of the external tegument, depending on this accumulation of carbon, were pathognomonic marks of phthisis pulmonalis; and he noticed uncurling hair, and a remarkable perspiring state of the skin of the face, among these symptoms. To follow Dr. Rees minutely through his elaborate Oration, would occupy more space in our Journal than can be spared. We cannot dismiss it, however, without observing, that to the choice of a subject, important as any within the circle of animation, was added a strain of eloquence, and a felicity of language and manner, which, notwithstanding the hypothetical wanderings with

which the Oration abounded, gave a general feeling of satisfaction; and furnished unequivocal testimony of a mind enlightened by science and philosophy.

ROYAL SOCIETY.

On Thursday, the 3d of February, a paper by Sir Humphry Davy was read, entitled *Some further Experiments on Fluorine, and on some other Objects of chemical Investigation.* This paper consisted, in fact, of three distinct subjects, treated of in succession. 1. Several further experiments were related, made in order to obtain fluorine in a separate state, but they were all unsuccessful. Fluorine has such a tendency to enter into combinations, that no vessels can be procured upon which it does not act. Most of our readers are probably acquainted with Sir H. Davy's opinion respecting fluoric acid. He considers it as a compound of hydrogen and an unknown supporter of combustion, which he calls *fluorine.* This fluorine has the property of combining with the base of silica and with boron, and it forms an acid with each. The fluates are compounds of fluorine and the metals, which constitute the bases of the salifiable bodies. A number of experiments to determine the proportions of the constituents of these bodies were detailed. Fluor spar, when heated with sulphuric acid, increases in weight from 100 to 175·4; but it was requisite to repeat the process eight times to obtain the full effect. If we suppose fluor spar to be a compound of fluoric acid and lime, this result gives us its composition as follows:—

Lime	73·661
Fluoric acid	26·339
	100·000

But if its constituents are fluorine and calcium, then its composition is—

Calcium	53·313
Fluorine	46·687
	100.000

According to this statement, an atom of fluorine will weigh 2·294, supposing an atom of calcium to weigh 2·62. (See *Annals of Philosophy*, vol. ii. p 46.) The analysis of several other fluates were given, but we cannot venture to state the numerical results with accuracy from memory. The reader will be under no difficulty in supplying this deficiency, if he considers them as compounds of an atom of fluorine and an atom of the metallic bases.

2. The second part of the paper was on *silica.*—3. The third part of the paper was on *chlorine.*

At the same meeting a paper by Anthony Carlisle, Esq. *On Monstrosity in the Human Species*, was read. The author detailed a number of examples of monstrosity, hereditary in particu-

lar families, and propagated from one generation to another. All monstrosity he conceives to take place only in cases where the artificial civilization of mankind has interfered. Thus varieties of dogs, pigeons, &c. are easily propagated.

On Thursday, the 10th of February, a paper by A. B. Brodie, Esq. on the influence of the nerves on the secretions of the stomach, was read. The experiments consisted in cutting the gastric nerves of dogs, and giving them doses of arsenic sufficient to produce death in a few hours. This poison in common cases occasions a great secretion of mucus in the stomach and intestines. But in these experiments nothing was found in the stomach after death. Hence the non-secretion of mucus seems owing to the section of the nerves.

At the same meeting a paper was read by Charles Kœnig, Esq. on the human skeleton from Guadaloupe, lately deposited in the British Museum. Mr. Kœnig introduced his paper by an historical sketch of all the facts that had been ascertained respecting fossil bones. Kamper, Blumenbach, and, above all, Cuvier, are the naturalists that have most distinguished themselves in these researches; but hitherto no human fossil bones had been discovered. Hence it was concluded, either that man was of subsequent creation to those animals, the fossil bones of which have been found, or that if human fossil bones exist they are covered by the existing ocean, and thus for ever conealed from our sight. The fossil human bones found at Guadaloupe appear to constitute an exception to this general rule. They were discovered by the French governor of Guadaloupe; and the specimen at present in the British Museum was dug up by him at considerable expence, and was intended for the museum at Paris. The capture of the island by Great Britain enabled Sir Alexander Cochrane to send it to the British Museum.

It was found near the sea-shore in a calcareous rock of the hardest texture, being considerably superior in that respect to statuary marble. The rock is partly granular, and partly compact. The granular part is a mixture of grey and flesh-red particles. The red particles Mr. Kœnig considers as the millepora miliacea in fragments; it contains also a few shells. In short, it seems to consist chiefly of a congeries of fragments of corralines connected together firmly without any apparent cement.

The bones of the skeleton are not petrified, but retain the usual constituents of fresh bone; and when first exposed to the air were rather soft. The skull and vertebræ of the neck are wanting. The seven true ribs and three of the false ribs of the left side remain; but on the right side these bones are destroyed, though the sternal part of the true ribs adhere to those on the left side. The sternum is not visible, being probably sunk into the stone. The dorsal vertebræ are all visible, though not perfectly well defined. The forearm and finger bones of one hand remain, and one clavicle. The pelvis is pretty entire, and so are the thigh

bones. The legs are so twisted in, that the fibula is sunk in the stone.

As to the age of this skeleton, there are no data to form a correct estimate, though in all probability it is not very recent. The appearance of the stone shows decidedly that it does not owe its origin to any calcareous deposition similar to calcareous tuff; but that its formation is analogous to that of common sandstone. It contains traces of phosphate of lime, which seems to demonstrate its animal origin.

On Thursday, the 17th of February, a paper by John Davy, Esq. *On Animal Heat*, was read. The author made a set of experiments in order to determine the specific heat of arterial and venous blood. He employed chiefly the blood of lambs. Two methods of experimenting were followed. 1. The relative times of cooling of equal bulks of arterial and venous blood were determined. The specific gravity of the venous blood was 1·050; that of the arterial, 1·047. This method gave the specific heat of arterial blood about 0·93; and that of venous blood, 0·92. 2. These two kinds of blood were mixed with water, and the change of temperature marked. The results differed somewhat in different experiments. Arterial blood by this mode of experimenting came out of the specific heat 0·95, venous blood 0·94 nearly. These experiments of Mr. Davy are apparently liable to two objections, which must prevent a full confidence in the results which he obtained. 1. It is probable that a chemical action takes place between blood and water; therefore the specific heat of blood cannot be accurately determined by mixing it with water. If alcohol and water were mixed, the temperature of the mixture would not determine the specific heat of alcohol. Neither would such a mixture determine the specific heat of blood. 2. Mr. Davy, in his experiments, often drew the venous blood of the animal on one day and the arterial on another. Experiments of this kind never lead to accurate results. Whenever an animal is thrown into an unnatural state, it is impossible to calculate what sudden changes may be produced on its blood. Mr. Davy made a set of experiments to determine the temperature of arterial and venous blood in animals. The arterial blood was always hottest. In the sheep it was 104° or 105°, while the venous was 103° or 104°. In the ox it was 101°, while the venous was 100°. These results Mr. Davy considers as favourable to Dr. Black's theory of animal heat, and likewise to the notion that the heat depends upon the nervous energy.

LINNÆAN SOCIETY.

On Tuesday, the 1st of February, a communication from Mr. Reynolds Johnson was read, giving an account of two fossil alcyonia found near Lyme. They were in flint, and in a very perfect state of preservation, and enabled Mr. Johnson to make several additions to our knowledge of the structure of this animal.

At the same meeting a paper was read by Mr. Roscoe on the

class monandria. It consisted chiefly of strictures on Dr. Roxburgh's essay on that class, in the eleventh volume of the Asiatic Researches.

On Tuesday, February 15, the conclusion of Mr. Roscoe's paper, intitled *Remarks on Dr. Roxburgh's Description of the Monandrous Plants of India*, published in the first volume of the Asiatic Researches, was read. Mr. Roscoe contends for the sufficiency of the generic characters derived from modifications of the anther-bearing filament of Seitamineæ, as proposed by him in his essay on this subject, published in the eighth volume of the Linnæan Transactions; and denies that Dr. Roxburgh's primary characters, taken from differences in the inner limb of the corolla, are of universal importance in this tribe of plants. He then proceeds to remark on certain species described by Dr. Roxburgh, whose *phrynium dichotomum* he regards as probably not specifically different from *maranta arundinacea*. His *phrynium virgatum* he is inclined to refer to *thalia geniculata*. Both Dr. Smith and Dr. Roxburgh have referred *amomum repens* of Sonnerat (the plant producing the lesser cardamons of the shops) to the genus alpinia. Mr. Roscoe, however, is induced to agree with Dr. Maton, who in his observations on Mr. White's paper on cardamons, published in the tenth volume of the Society's Transactions, has proposed to establish this plant as a new genus, under the name of *elettaria*; and on the authority of the published figures, Mr. Roscoe considers it as differing from alpinia, not only in habit, but in the structure and appendages of its anther-bearing filament.

With regard to Dr. Roxburgh's *globba radicalis*, he adopts the opinion of Dr. Sims, who in the Botanical Magazine (N° 1428) has established this as a distinct genus, under the name of mantisca saltatoria. Mr. Roscoe considers this genus as differing from globba no less in the structure of its filament than in its inflorescence.

Annual Report of the ROYAL INFIRMARY *for the* DISEASES *of the* EYE, NASSAU-STREET, 1813.

Mr. PHIPPS and Mr. ALEXANDER reported, that since the last General Meeting of the Governors of this Charity, held on the 26th of March 1812, it appeared by the books, there had been received 1703 patients, in addition to 916 remaining on the books; 1569 of these had been relieved and discharged, and 19 deemed incurable.

That amongst various other operations, 68 had been performed for the extraction of the cataract, 63 of which had been successful.

That the total amount of poor persons received since the opening of the charity in 1805, was 18,656; of whom 17,212 had been relieved and discharged; 413 deemed incurable, and 1031 remained upon the books.

That within the same period, 636 operations for the extraction of the cataract had been performed; 598 of which had terminated successfully; and 71 of these were on persons born blind.

(Signed) SOMERSET.

Mr. Abernethey finished the Course of Lectures on Human Anatomy, at the College of Surgeons, on Tuesday, March 15th. The last Lecture was on Mortification; and in concluding, Mr. A. embraced the opportunity of offering some most appropriate advice to the students on the best mode of pursuing their professional studies. The whole of this Course has been characterized by a display of profound thought and accurate observation, resulting from deep research and extensive practice. The effect has been brilliant; and will be ever remembered as the production of a great master. The Profession will be gratified by hearing that Mr. Abernethey intends to publish the two Introductory Lectures.

Mr. Astley Cooper delivered the Introductory Lecture on Comparative Anatomy, on Tuesday the 22d of March. From the eminent abilities of the Lecturer, and from the general interest excited by the preceding Course, there can be no doubt but they will be attended with equal eclat.

⁂ Much as we commend the spirit that dictated, and the liberality that instituted these Public Lectures, we trust we shall not presume too much, if we take leave to express our doubts of their proving as really useful as is unquestionably designed.

The theatre is arranged to contain 350 persons; which is about one half of the members residing within seven miles of London. The pupils to the different teachers may be reckoned at 800. Consequently, there are 1500 persons who may claim admittance, according to the present regulation, to a space just adapted to hold one-fourth the number. What has happened might have been well anticipated. Neither the members, nor the pupils, can be accommodated. Numbers have been disappointed for want of room. On Tuesday, the 22d, the passage to the members' seats was blocked up by the pupils, by half-past two o'clock. Admission through the College was peremptorily refused; and above 100 members, some of whom had come many miles, were much to their chagrin obliged to retire. We are certain that the Curators are disposed to pay every possible attention to the members, who, if on no other ground, as they annually contribute to the funds of the College, may be supposed to have a right to a preference; we therefore humbly suggest that all of them who are in attendance at a specified time, should have free ingress; and the vacant space, if any, might then be occupied by the pupils. But this favour should not be granted to the pupils indiscriminately. We are persuaded that the effect of these Lectures will be detrimental, rather than tend to their improvements; and we confidently predict, that their teachers will soon perceive the truth of this observation. That they may have opportunities of attending, all other Lectures are suspended twice a week during that season which is particularly devoted to dissections. It entices them from the regular pursuit of their studies, and breaks a day, the remainder of which is oftener wasted in frivolous pleasures, and exhausting the means appropriated to their education, than in reflection upon what they have heard. Besides, these Lectures are not elementary; they are

composed by men who are, and will be selected for their pre-eminent merits, and who will of course embody in their discourse the practical results of their studies and experience; and thus these Lectures will constitute, in epitome, the perfection of the science.

Unless, therefore, every pupil present has advanced considerably in his studies, he is totally incompetent either to appreciate, or profit from, the instruction such Lectures are calculated to impart.

If tickets of admission were granted to those only who had attended a certain number of Courses in the schools, their time then could not be better employed; and it would be conferring a distinction which would become an object of emulation.

Thus, even in the present Theatre, all classes might be accommodated, and they who are really attached to science might reap the pleasure and instruction which indubitably it was the intention of the College to afford the Professors of the Chirurgic Art.—Editors.

M. Levrat, a French physician, has strongly recommended the seeds of the *Iris pseudo-acarus*, as a febrifuge, and as a substitute for Coffee. He recommends the seeds to be gathered at the end of August or the beginning of September; the capsules to be kept in a dry place for a month, and frequently turned; after which they are to be opened, and the seeds separated. To prepare them for use, the seeds are first to be torrefied, but only to complete dryness, so as to render the cuticle, or tuta, easily separated, by rubbing in a wooden mortar with a wooden pestle. Thus freed from the cuticle, they are to be again roasted, and then ground to powder, in the same manner as coffee. Two ounces of this powder are sufficient for a quart of boiling water; and furnish an agreeable infusion, less bitter than coffee, and consequently requiring less sugar. M. Levrat administered this infusion, with success, in intermittent fevers; and regards it as a remedy of very considerable efficacy.—*Annales de Chimie*, tom. lxxxvi. p. 63.

"Kirchoff, a Russian chemist, well known by his curious "discovery of the method of converting starch into sugar, has "proposed a method of preserving milk for any length of time, "which is said to answer perfectly. He reduces it to a dry mass "by gentle evaporation. This reduced to powder, when mixed "with the requisite proportion of water, is brought back nearly "to its original state." (*Annals of Philosophy*, N. xiv. p. 152.)—This hint led us to make several experiments on this subject; of which the following are the results. The milk must be new from the cow, and the evaporation conducted in a flat earthen or stone ware dish, placed over a pan, of the same diameter as the dish, containing water, which must be kept boiling. At a greater degree of heat than 212°, the product of the evaporation of milk becomes brown; but at this temperature, occasionally stirring the milk in order to break a pelicle, which forms on its surface as the evaporation proceeds, a pale greenish-yellow or straw-coloured dry mass is obtained. When this substance is reduced to an impalpa-

ble powder, in combination with a eighth part, by weight, of refined sugar, it forms, when mixed with tepid water, a fluid somewhat resembling milk in colour and taste; although the whole of the powder does not dissolve. If the water be nearly of a boiling temperature, or if the powder be added to very hot tea, a little oily matter separates, and swims on the surface.—It would appear that Kirchoff imagines evaporation frees milk of the water only which it contains, but that the other components suffer no alteration. We are of opinion, however, that the creamy part undergoes some change, probably by the attraction of oxygen, which makes it approximate to the state of butter; while the cheesy part also becomes less soluble.—Notwithstanding these changes, and although the milk is not nearly brought back to its original state, yet if the powder can be long kept without undergoing any further alteration, we conceive the discovery to be one of importance to every maritime country; for the advantages must be obvious, which sea-faring people would derive, both as to comfort and the preservation of health, were they always able to obtain milk even in the way in which it can be formed by this powder.

An Infirmary for curing Diseases of the Lungs, has just been established under the patronage of their Royal Highnesses the Dukes of Kent and Sussex, the Earl of Darnley, &c. Dr. Buxton took a considerable share in the discussion at the Meeting held for the purpose.

Hydrophobia.—The following melancholy case of this most dreadful malady lately occurred in Newcastle:—James Sharp, glassman, son of Alex. Sharp, of Queen-street, complained of being unwell, on Wednesday, Dec. 8, in the morning, after returning from his work at the Northumberland glass-house; he said he had been vomiting throughout the previous night while at work. On Thursday he was much worse, when an emetic was procured for him, but he could not bear the sight of it when put into a liquid. On Friday, a medical man examined the youth, and trying the effect the sight of water produced on him, gave it as his opinion that it was a case of hydrophobia. Inquiry was then made whether he had ever been bitten by a dog, but the parents were ignorant of such a circumstance; the young man was then asked, when he said a puppy of his had bit his thumb three weeks ago last Sunday, and that the dog died soon after. A powder was now given him, which he swallowed with closed eyes and the greatest agitation, not being able to bear the sight of the water in which it was mixed. The case arrested the attention of several of the faculty; in the afternoon of Friday he was bled in both arms, and in the temple. From that time he continued excessively ill, till about half-past three o'clock on Saturday morning, having only about ten minutes respite between each paroxysm. A few minutes before expiring, he expressed a wish for a drink of *warm* water—about two teacupsful were given him, when he appeared something easier. Shortly after, he had a desire to make water; he was taken up for that purpose, but no sooner did his feet touch the ground, than he threw himself back in his father's and uncle's arms, and expired without a groan.

Dr. Davis, Fellow of the Royal College of Physicians in Edinburgh, Licentiate of the Royal College of Physicians in London, and Physician Man-Midwife in Ordinary to the Queen's Lying-in Hospital, &c. will give a Course of Lectures on the Theory and Practice of Midwifery, which will comprehend a full Exposition of the Anatomy, Physiology, and Pathology of the Female Pelvis, and of the other Parts concerned in the Practice of Midwifery. Particular Instructions will be given for the Management of Labour in all its Varieties and Complications: together with practical Directions for the Treatment of Women in the Puerperal and Parturient States. The Mechanism of Labour will be illustrated by an Apparatus, constructed upon new Principles, and possessing extensive Powers of imitating the Stages and Difficulties of Parturition, as they occur in the living subject. The consideration of Female and Infantile Diseases will occupy the latter part of the Course. The introductory Lecture of the ensuing Summer Course, will be delivered on Monday the 6th of June, at Nine o'Clock in the Morning, at his House, No. 18, Lower Charlotte Street, Bedford Square.

Professor Tennant of Cambridge, commences his Lectures on Chemistry, the 25th of April, at the Botanic Gardens of that University.

Dr. Robert Watt of Glasgow, will begin his Summer Course of Lectures on the Practice of Medicine, on the 3rd of May, at Nine in the Morning.

We are requested to state, that in a Pamphlet circulated by Dr. Walker's Vaccine Institution, the name of Mr. Lawrence, of the College of Physicians, has been inserted, without his consent or authority, as Assistant Director of that establishment. Mr. L. has never had, either directly or indirectly, any share whatever in conducting the affairs of that Institution; with which he has no connection of any kind, except as an annual subscriber of a small sum to its funds.

To the inquiries of our correspondent, Y. Z. we can only answer, that we suppose the project for the cure of Insanity, by Messrs. Lucett and Delahoyde, may yet be going on; but, as a public benefit, with little success we fear. Of the detail of the method employed, we cannot be supposed to know much, because that is, by design, kept secret. But as *Dr. Harness*, the only *Physician* in the committee selected for the superintendance of this project, has avowedly been made fully acquainted with the secret of *Lucett*, the Faculty has a right to expect, sooner or later, an explicit developement. The rank and station of Dr. Harness, the selection of him to guide and direct the scrutiny of gentlemen, fairly supposed to be but little conversant with the subject, entitle the Profession and the Public to all the information he *can* give. In a half-yearly Report of the Progress of Medical Science, to be published in our Journal for July, we shall endeavour to give Y. Z. whatever may have come to our knowledge respecting this project.

The Bill intended for "Regulating the Practice of Apothecaries," is now arranging by the Court of Assistants of the Society of Apothecaries; by whom it will be submitted to the College of Physicians, previously to its being introduced into Parliament, during the present session. With its details the General Committee of Associated Apothecaries are wholly unacquainted; as they have not yet received any communication on the subject. But when they are in possession of a copy, we feel authorized in stating, that it is their intention to lay the same before a General Meeting, which will be convened by public advertisement for that purpose.

MONTHLY CATALOGUE OF BOOKS.

Commentaries on the Treatment of the Venereal Disease, particularly in its Exasperated State: including a second Edition of a former Publication on that Subject, considerably augmented and improved, on the Use of Mercury, so as to ensure its successful Effect; with an Appendix on Strictures of the Urethra, and on Morbid Retention of Urine. By Edw. Geoghegan. 8vo. Callow.

Elements of Electricity and Electro-Chemistry. By George John Singer. 8vo. Longman and Co.

A Practical Treatise on Cataract. By John Stevenson. Second Edition with considerable Additions. 8vo. Longman and Co.

Medical Reports on the Effects of Water, Cold and Warm, as a Remedy in Fever and other Diseases, whether applied to the Surface of the Body, or used Internally. By James Currie, M.D. F.R.S. 2 vols. 8vo. Cadell and Davies.

Veterinary Medicine and Therapeutics; containing the Effects of Medicines on various Animals; the Symptoms, Causes, and Treatment of Diseases, with a select Collection of Formulæ. By W. Peck, London. 8vo. Newman and Co.

A Treatise on Hydrencephalus, or Dropsy of the Brain. By James Carmichael Smyth, M. D. &c. 8vo. Callow.

An Account of the Most Important Recent Discoveries and Improvements in Chemistry and Mineralogy to the present Time; being an Appendix to their Dictionary of Chemistry and Mineralogy. By A. and C. R. Aikin. 4to. Arch.

A Treatise on Hernia. By Antonio Scarpa. Translated from the Italian, with Notes and an Appendix. By John Henry Wishart. 8vo. with Plates. Longman and Co.

Recreations in Natural History. Demy 8vo. Monthly. William Clarke.

Elements of the Philosophy of the Human Mind. 2d vol. By Dugald Stewart, F. R. S. E. Cadell and Davies.

Observations on Diseases of Females, which are attended with Discharges. By C. M. Clarke. Royal Octavo. Longman & Co.

A Conspectus of the London, Edinburgh, and Dublin Pharmacopœias. By E. G. Clarke, M. D. 8vo. Cox.

A METEOROLOGICAL TABLE,

From February the 21st, to March the 20th, 1814,

KEPT AT DERBY,

Lat. 52°: 58′ N.—Lon. 1°: 20′ W.

M	D	Therm. Morn.	Therm. Day.	Barom.		Hyg.	Wind.	Rain.	Remarks, &c.
	21	27	39	30	21	62	SW		Clear
	22	26	39		18	69	S		Clear
	23	26	36		10	71	SE		Light Clouds
	24	23	34		04	83	SE		Light Clouds
	25	24	35		07	86	S		Clear
	26	24	36	29	98	90	SE		Clear
S	27	25	36	30	00	94	SE		Light Clouds
	28	34	45	29	34	88	SW		Light Clouds
	1	36	39	29	02	42	NW	34	Dull
	2	30	34	28	83	35	SW	06	Snow
	3	30	36	29	16	38	S		Cloudy
	4	30	34		40	27	N	01	Snow
	5	30	32		75	18	NE	01	Dull, Snow
S	6	25	31		76	22	W	02	Snow
	7	26	30		81	28	NE	02	Snow
	8	25	34		86	26	N	02	Snow
	9	26	34		68	27	E	02	Cloudy
	10	28	34		65	26	NE		Cloudy
	11	28	36		65	16	N	03	Snow
	12	30	35		82	21	N		Small Snow
S	13	32	36	30	05	16	N		Dull
	14	31	39		16	37	N		Dull
	15	30	33		30	19	NE		Dull
	16	29	34		33	9	N		Cloudy
	17	29	32		35	18	E		Cloudy
	18	27	37		24	29	NE		Fine
	19	28	34	29	96	17	NE		Dull
S	20	28	34		78	10	S		Dull

Rain fallen in February 1.05

Observations on Diseases at Derby.

Catarrh and Pneumonia are still the prevailing diseases. In different individuals, these have assumed a different appearance, according to the peculiarities of their constitutions. In very young children, the Pneumonic form has proved extremely fatal; whilst in delicate or diseased habits, the inflammatory catarrhal symptoms have sometimes suddenly subsided, the tongue has become brown, the type of the fever has appeared to change, and a state of weakness supervened, from which the patient has slowly recovered. In a few cases, this change was followed by death in two or three

days. This variety of the complaint was most particularly apparent during the latter days of February, when the weather was more open, and the wind southerly; it has been more rare since the wind changed to the north-east at the beginning of March.

In one instance, the disease commenced with difficulty of breathing, pain in the region of the liver, clayey stools, sickness, and indistinctness of pulse. These symptoms continued for three weeks, when deep seated pain was occasioned by pressure under the curvature of the ribs on the right side, and attended with other symptoms, which strongly indicated the formation of matter. The patient grew rapidly worse; was unable to lie down; breathing became difficult, with a delirium and restlessness, which is almost indescribable. The pulse gave no regular beat, but seemed only to oscilate very quickly under the finger, which was not unlike the description given of *Delirium Tremens.* From this state the patient was relieved by two grains of opium repeated at the end of two hours; the delirium went off, and he slept with his head raised for several hours; but his breathing continued the same, and his pulse never was lower than 130. During the continuance of these very alarming symptoms, his muscular powers were comparatively but little impaired. In twenty-four hours he relapsed into his former condition, and although he was somewhat relieved by large doses of cinchona, he speedily died. On examining the body, the liver was free from disease; but the contents of the thorax, diaphragm, and and the upper abdominal viscera were consolidated by adhesions, which had followed a very dangerous attack of Pneumonia, from which he recovered thirteen years before, when at the age of sixteen. The cellular membrane of the lungs was entirely occupied by white hard tubercles as large as corn grains, attended with much reddish mucus. In the pericardium, there were about two ounces of water; the heart was entirely filled with black blood, although the valves were perfect; but the right ventricle was not so capacious as the left by one third at least*, in consequence of an unusual number of those muscular processes which occur in both ventricles, but more particularly in the right. In three or four places, they united the sides of the ventricle by bars not half an inch long. In other respects, the body was healthy. The conformation of the heart was of course original, but it had not produced any very alarming symptoms, whilst the lungs remained unobstructed, but immediately that the lungs became diseased, the heart was impeded in its action, which then became hurried, and the extraordinary state of irritability which characterised the case, was produced. The two diseases would then increase the mischief by their re-action on each other, and inevitably lead to a fatal termination.

March 20th, 1814.

* In the dead body, the right ventricle is usually found to be the most capacious.

Sir Humphrey Davy has been chosen Corresponding Member of the first Class of the French Institute, in the room of the late Mr. Kirwan, by 47 votes out of 48.

A new Monthly Work, entitled, General Conchology, will be Published in May, by Wm. Wood, F. R. S. L. S. &c.

Professor Soemmerring is employed on a Work, which he intends to publish, on the Sensation of Feeling.

A METEOROLOGICAL JOURNAL,

From the 21st of February to the 20th of March, 1814,

KEPT AT RICHMOND, YORKSHIRE,

NW from London.

D.	Barometer. Max.	Barometer. Min.	Therm. Max	Therm. Min.	Rain Gage.	Winds.	Weather.
21	29 84	29 84	41	27		SW.	1 S...
22	29 84	29 83	39	29		S.	1 M.. 2 S...
23	29 77	29 74	36	22		SSE..	1 M.. 2 S...
24	29 76	29 74	36	25		SE..	1 S. 3 Cy..
25	29 77	29 70	32	22		SE..	1 S...
26	29 77	29 76	37	28		SE.E.	1 S. 3 Cy.. 4 Moonsh..
27	29 54	29 40	37	29		S..SE..	1 3 Cy.. 2S.. 4 Moonsh..
28	29 10	28 61	42	36		SW..SW...	1 3 Cy.. 2S.. 4 Moonsh..
1	28 43	28 39	42	30		W..	1 Sh.of R. 2 Cy.. 4 Moon..
2	28 50	28 33	40	31		WSW..	1 S... 3 Cy... 4 Sn.
3	28 98	28 83	42	31		SE..	1 3 4 Cy.. 2 S.
4	29 35	29 15	36	30		NE.	1 Sn..
5	29 56	29 48	38	28		ENE.	1 Sn.
6	29 42	29 39	42	23	Melted Snow.	NW..NE..	1 Sh. of Sn. & S..
7	29 56	29 50	39	27		NE..	1 S.. 3 Sh. of Sn.
8	29 56	29 42	41	29		NE.	1 Sh. of Snow..
9	29 37	29 33	36	30		E by N.	1 Sn.
10	29 33	29 30	36	30		NE..	1 Sn.
11	29 38	29 34	38	29		NE.	1 3 4 Sn. 2 S..
12	29 56	29 40	38	30		ENE.	1 3 Sn. 2 4 Cy...
13	29 80	29 76	39	32		E.S.	1 Cy..
14	29 95	29 84	40	33	30	SW.SE.	1 3 4 Cy.. 2 S..
15	30 07	30 03	38	30		SE.	1 Cy..
16	30 05	29 99	38	29		SSE.SW.	1 3 4 Cy.. 2 S.
17	29 91	29 86	38	31		E by S.	1 3 4 Cy.. 2 S..
18	29 79	29 70	38	32		E.	1 4 Cy.. 2 S.. 3 M..
19	29 54	29 41	36	31		E. N by E.	1 M... 2 M.
20	29 36	29 34	39	32		SE..	1 4 Cy... 2 3 S...

Observations on Diseases at Richmond.

There has been no rain this month, except some slight showers on the 1st of March, and a few days small snow, which, when melted, did not exceed 30—100ths of an inch. From the 8th to the 13th of February, there was a partial thaw, which cleared a good deal of snow; but on the 14th the frost set in again, though not with the same intensity as in January. About the latter end of February, febrile complaints, with severe cough and dyspnœa, began to prevail in a remarbable degree; particularly with children under two years of age. Though the cases seemed to be very alarming at first, and have proved tedious, yet there has been much less mortality than in the preceding month. A few cases of epistaxis appeared about the same time. A case of hydrothorax also occurred, which very soon proved fatal. Four cases of phthisis pulmonalis, at present under treatment, are all likely to have a fatal termination. All the cases of typhus mentioned in the preceding report are now convalescent. Two more persons in the same family have been attacked, but they are already recovering.

A REGISTER of the DISEASES of LONDON between February 20th and March 19th, 1814, for the London Medical, Surgical, and Pharmaceutical Repository.

DISEASES.	DISTRICTS. 1 S. W.	2 S.	3 S. E.	4 E.	5 N. E.	6 N.	7 N. W.	8 W.	9 Surry sideW	10 Surry sideE.	11 Hamp Highg	No. of Cases.	Fatal.
Amentia		1										1	
Anasarca	7	1	2	2	2	2	3	2	1			22	1
Angina Pectoris				1								1	
Ascites	4		1		2	1			2	2		12	2
Asthma	19	8	11	2	26	20	68	9	9		11	183	22
Acne					1				1			2	
Apoplexia			4	2	2	2	4	1	1	1	2	19	11
Aphtha	1		1		2	3	5	1		4		17	1
Amenorrhœa	6	2	4		1	5	3	3	2	3	1	30	
Asthenia	14	4	6	4	13	3	6	1	4	1		56	3
Abortio	2		1	1	2	4	4	2	2	3	2	23	
Bronchitis acuta	2		8		1	3	2	5		3		24	1
——— chronica	3		7		3	4		1	2	5	1	26	2
Cancer	3			1			1			1		6	3
Cephalæa	2											2	
Chlorosis	2		4	4			2		2		3	17	
Cholera		2	1	2	1	1	6	2	3			18	
Chorea							1					1	
Cephalalgia	5	4	4	4	5	3	5	2	5	4	3	44	
Colica	1	3			5	3	2	2	3	2		21	
Catarrhus	66	20	79	50	66	54	75	56	17	16	16	515	3
Convulsio	5	1	3	4	4	8	1	2		3	2	33	7
Carditis						1						1	1
Cynanche Tonsillaris	13	1	20	5	15	15	7	15	6	4	4	105	
——— maligna						6	1		1			8	1
——— Trachealis			2					1		1		4	1
——— parotidea	2				4	3	1		2	8		20	
Cystitis					1							1	1
Diabetes			1		1							2	
Dysenteria	1	1		1	3	3	6		2			17	1
Diarrhœa	21	4	24	3	3	10	8	21	7	5	2	108	
Dyspnœa	12	1	11		16	1		7	2	3	2	55	
Dyspepsia	21	6	24	14	22	6	19	12	11	6	12	153	
Dysuria	2	1			3				1			7	
Ecthyma	1				3		2			2		8	
Erythema					1	2	1		1			5	
Erysipelas	7	1	10	9	5	15	6	2	4		2	61	
Enteritis			1	2	1		4	3	1			12	3
Entrodynia	3		1	3	2	2		2	3		3	19	
Enuresis	1				4					1		6	
Epilepsia	1				3	3	3		1	1		12	
Febris remittens	20	1	27	6	19	30	4	4	7	6	9	133	
—— intermittens	1	4	4	3	2	5			2		1	22	
—— puerpera					2	1				2		5	
Fungus Hæmatodes										1		1	
Gastritis		1							1			2	
Gastrodynia	15		1	7	4	1	2	3	4	6	2	45	
Hæmatemesis								1		1		2	
Hæmaturia					1					1		2	
Hæmoptoe	9	2	2	4	3	4	2				1	27	
Hæmorrhois	6	2	3	1	2	4	5	3	3	3	1	33	
Hepatitis		1	11	1	1	2	2	2	3	9		33	
Hysteria	4		5	4	7	3	4	3	2	2		34	
Hysteritis				1			2					3	
Hydrocephalus	6		4	2	1	3		2	1	2	1	22	
Hydrothorax	1		1			3	2	1		1	1	10	
Herpes	3	2	1		5	1	10		3		3	28	

DISEASES.	DISTRICTS. 1 S. W.	2 S.	3 S. E.	4 E.	5 N. E.	6 N.	7 N. W.	8 W.	9 Surry sideW	10 Surry sideE.	11 Hamp Highg	No. of Cases.	Fatal.
Hypochondriasis	1		2	3	2		3	2	2			15	
Icterus	2			2		1	4	1	3	2	1	16	
Impetigo	1		2				10					13	
Ischuria		2		2	3		4	1		1		13	
Leucorrhœa	5			4	5	6	7	2	4	3		36	
Lithiasis							1					1	
Lepra			2									2	
Lichen					1		1					2	
Mania	2			1	3	3	4					13	1
Menorrhagia	5	1	2	4	1	2	7	4	3	1		30	
Miliaria							1					1	
Morbi Infantiles*	20	2	20	9	19	8	32	36	8	32	11	197	
——— Biliosi	25	4	17	19	14	20	13	12	12	28	8	172	
Nausea						1						1	
Nephritis			1	4	1		1					7	
Obstipatio	13	2	7		16	8	10	2	4		1	63	2
Ophthalmia	9	1	14	1	5	10	4	5	2	3	6	60	
Palpitatio						1						1	
Paralysis		1	2	4	2	1	2	1	1	1		15	2
Phthisis Pulmonalis	6	9	5	5	3	3	14	2		1	1	49	19
Pertussis	21	6	12		11	5	21	5		10	1	92	5
Peritonitis			1	3	1	3	2	1	1	2		14	
Phrenitis		1						3				4	1
Pneumonia	4	20	18	26	14	6	21	18	4	15	1	147	12
Pleurodyne				1	1			1				4	
Podagra	3	2	7	2	3	2	3	8	2	1		33	
Porrigo larvalis	1				2	1	2					6	
——— scutulata							1			4		5	
——— favosa					3			1				4	
Psoriasis	3			1		1			4		4	13	
Purpura	1							1				2	
Pyrosis	3			3					2	2		10	
Rachitis				1			1				1	3	
Rheumatis. acut	9	9	5	14	10	7	10	7	15	3	3	92	
——— chron.	11	8	5	3	26	5	32	3	8		4	105	
Rubeola	2	13					6	1				22	1
Scabies	3	1			6	6	74			4	1	95	
Scarlatina simplex	3	6				2	4	2	2	1		20	
——— anginosa	4	3	1			1	1	1		3		14	
——— maligna										1		1	1
Splenitis			1		1					1		3	
Scrofula	6		2	1	2	5	2	3	3	3	3	30	
Synochus		2			2		3			1		8	
Tabes Mesenterica				1			5	2	1	2	1	12	3
Tic Doloreux										1		1	
Trismus						1						1	
Typhus		2		1		3	3	1				10	1
Variola						2	1	1				4	
Varicella			1				1					2	
Vermes	4	5		4	6		2	1	5	5	1	33	
Vertigo	3	3	2		4		4	2	4	4		26	
Urticaria			1	1	2		2		2	1	1	10	
Total No. of Cases	463	204	419	265	420	352	591	301	217	249	134	3623	
Total of Deaths													137

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from … ion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*; but cannot be accurately classed.

☞ *Although the* Editors *have the satisfaction of finding the number of contribut … he Register of Diseases monthly augment, yet they have to regret that the returns from the 2nd or South, or 9th and 10th, or Surry, and the 11th Districts, are lamentably defici … those Districts many of their personal friends reside, on whom they hope this remark will not be made in vain.——*.* The returned Registers should be sent to Mr. BUR … Bloomsbury Square …*

AN ABSTRACT from the REGISTER of those DISEASES of LONDON, presumed to originate in, or be influenced by, the State of the ATMOSPHERE, with a DIURNAL REFERENCE to the METEOROLOGICAL TABLE.

METEOROLOGICAL TABLE,

From the 20th of FEBRUARY, to the 19th of MARCH, 1814.

M.	Therm.	Barom.		Hygrom. Dry.	Hygrom. Damp.	Winds.	Atmos. Variation.	D.	Asthma.	Apoplexia.	Bronchitis.	Cholera.	Cephalalgia.	Colica.	Catarrhus.	Cynanche.	Cynanche Trachealis.	Dysenteria.	Diarrhœa.	Dyspnœa.	Erysipelas.	Febres.	Hæmoptoe.	Morbi Biliosi.	Ophthalmia.	Paralysis.	Phthisis.	Pertussis.	Pneumonia.	Podagra.	Rheumatismus.	Rubeola.	Scarlatina.	Typhus.	Variola.	Varicella.	Vertigo.	Urticaria.
●	30 32 30	30^{4}			19 14 16	NE..	F...F...F...	20	9	4	2	—	1	1	19	7	1	—	5	2	7	11	—	4	2	2	4	3	7	3	7	—	2	—	—	—	—	
	24 33 32	30	3		19 15	w..s.sw.	C..F..C..Fog...	21	9	1	2	1	1	—	13	8	—	1	5	4	4	7	1	7	4	—	3	2	4	3	6	1	3	—	—	—	—	1
	30 32 32	30^{3}			15 12 11	E..SE..	Fog..F..C..	22	8	—	3	1	—	1	26	6	—	—	4	3	2	2	1	7	2	—	3	1	8	2	5	—	1	—	—	—	2	—
	30 31 28	30^{2}	3		15 12	E..SE..	C..F..F...	23	7	2	3	2	2	—	18	4	—	1	2	1	1	9	1	10	4	—	3	1	4	—	15	—	1	1	—	—	—	1
	24 33 27	30^{2}			10 8 7	E..SE.	C..F..F...	24	13	—	4	1	—	2	20	6	—	—	6	4	4	5	2	8	—	—	—	2	5	—	6	—	1	—	—	—	2	—
	24 32 29	30^{2}	1		10 10 8	E..SE.	Fog..F...F...	25	8	—	4	1	1	2	28	5	—	2	8	1	2	10	—	7	6	—	—	5	5	2	5	—	2	—	1	—	2	—
	25 37 30	30	1		12 11	E..SE.	Fog..F..F...	26	9	1	—	3	1	1	23	—	—	1	6	—	4	8	1	8	2	—	2	4	6	1	10	1	2	—	1	—	1	—
◐	28 38 32	30			13 12 11	E..	F..F....F...	27	4	—	1	—	3	—	10	5	1	2	4	1	—	8	—	3	—	—	2	3	4	—	7	—	—	—	—	1	3	—
	30 45 40	29^{9}	6		14 15 17	S..W.	C...C...C..	28	9	1	3	—	4	1	17	3	1	1	6	3	3	5	3	6	—	1	2	8	9	—	9	3	2	—	—	—	1	2
	43 38 35	29^{2}	29		22 20 17	SW...NW..	C....Snow..R.F....	1	9	—	4	—	4	1	20	9	—	1	1	3	3	9	—	7	7	1	5	7	9	4	8	—	1	1	—	—	1	2
	34 41 36	28^{9}	8		22 20 19	SW..	F.Snow...R..F.	2	5	—	1	1	2	1	22	5	—	—	4	1	—	6	1	8	1	1	2	7	6	2	8	1	—	—	—	—	1	—
	36 40 36	28^{9}	29^{2}		22 20 18	SE.	C...F...F...	3	6	—	—	—	1	—	26	2	—	—	2	—	1	5	—	6	2	1	3	—	6	—	7	—	1	1	—	—	1	—
	36 37 35	29^{3}	29^{4}		19 20 23	N..NE..	C...Snow..Snow.	4	9	—	2	—	4	—	18	5	—	—	6	—	1	6	2	6	1	—	1	5	9	1	7	1	—	1	—	—	—	—
	36 37 30	29^{5}	8		20 18 16	NE..	C...Snow..Snow.F.	5	1	—	1	1	2	1	14	4	—	1	2	2	—	5	—	9	2	—	2	—	7	—	5	—	1	1	—	—	—	—
○	31 34 32	29^{9}	7		15 15 14	NE..	C..F..sn..sn in N...	6	6	2	1	—	2	—	5	3	—	—	—	—	—	6	1	4	—	—	1	—	5	—	4	—	—	1	1	—	—	1
	33 32 28	29^{8}	9		15	SE..	C....F..Snow.	7	6	—	1	—	2	2	20	5	—	—	6	3	4	6	—	7	2	—	2	2	2	—	8	—	1	—	—	—	3	—
	30 33 32	29^{9}	8		18 15	N..	Snow.C..Snow.	8	9	—	—	—	—	—	16	4	—	—	1	3	2	5	1	2	2	1	2	1	5	—	10	3	—	—	—		1	2
	29 35 31	29^{7}	6		16 17	NE..	F...C..Fog.	9	6	—	1	—	1	2	14	6	—	1	7	2	1	4	—	9	2	1	2	2	2	1	10	2	3	1	—	—	1	—
	30 35 33	29^{5}			16 17	NE..	C..Snow..Snow...	10	3	—	1	—	1	—	30	3	—	1	—	1	2	4	—	8	3	—	—	5	6	2	9	—	2	—	—	1	—	—
	30 36 33	29^{5}	6		15 16	NE..	C .Snow..Snow..	11	8	1	1	1	2	1	16	3	—	1	3	4	—	3	3	5	1	—	1	10	2	—	8	2	3	—	—	—	—	—
	30 31 34	29^{7}	9		15 16	N..	C....Snow...C...	12	8	1	4	1	2	—	22	2	—	1	4	2	5	4	—	3	1	1	2	5	6	1	7	—	1	2	—	—	3	1
	31 37 35	30^{1}	2		16 15	NE..	C....C...C...	13	9	1	2	1	—	2	16	1	—	—	4	2	4	7	1	4	2	—	2	3	6	3	7	1	—	—	—	—	1	—
◑	33 35 34	30^{2}	3		15	N..	C...C..C....	14	5	—	2	2	[illegible]	—	15	5	—	1	5	4	—	3	—	4	2	—	—	—	3	1	6	—	1	1	—	—	1	—
	32 34 33	30^{3}	4		15	E..	C....C...C...	15	4	1	1	—	[illegible]	—	12	4	—	1	4	2	5	7	2	6	—	3	2	3	5	2	8	2	1	—	—	—	—	—
	32 36 33	30^{4}	3		16	NE..	C...F.C...	16	5	—	3	—	[illegible]	—	15	5	—	—	3	2	1	3	1	8	2	2	1	1	6	1	6	—	2	—	1	—	—	—
	32 37 34	30^{3}	2		19 18 17	NE..	C....C..C...	17	4	2	1	—	—	2	21	4	—	1	6	1	—	5	4	6	2	1	—	2	4	1	2	—	3	—	—	—	—	—
	32 36 34	30^{2}	1		19 17	NE...	C....C..C...	18	2	1	—	1	[illegible]	1	21	6	—	—	4	2	4	2	1	4	3	—	2	—	2	—	5	—	1	—	—	—	—	—
	32 35 33	30	29^{9}		19 18	NE..	C....C...C....	19	2	—	2	1	[illegible]	—	19	5	1	—	—	2	1	5	1	6	4	—	—	9	3	3	2	5	—	—	—	—	2	—
							No. of Cases...		183	19	50	18	4	21	515	123	4	17	108	55	61	153	27	172	60	17	49	92	147	33	197	22	35	10	4	2	26	10
							Fatal...........		22	11	3	—	—	—	3	1	1	1	—	—	—	—	1	—	—	2	19	5	12	—	—	1	1	1	—	—	—	—

Princes Street, Cavendish Square.

Total of Cases,...2214. Total of Deaths,...84.

Fall of Rain, from February 28th, to March 19th, 80-100ths of an inch.

BILL OF MORTALITY, *from February 15th, to March 15th,* 1814.

CHRISTENED.

	Feb. 15-22.	*Mar.* 1.	*Mar.* 8.	*Mar.* 15.	Total.
Males.........	186	146	154	224	
Females......	195	156	160	181	
	381	302	314	405	1402

Increase......... 225

BURIED.

	Feb. 15-22.	*Mar.* 1.	*Mar.* 8.	*Mar.* 15.	Total.
Males.........	253	186	248	226	
Females......	250	143	177	208	
	503	329	425	454	1691

Decrease........ 22[illegible]

OF WHOM HAVE DIED,

	Feb. 15-22.	*Mar.* 1.	*Mar.* 8.	*Mar.* 15.	
Under 2 yrs...	126	93	110	118	
Betw. 2 & 5...	47	27	37	36	
5 & 10...	15	11	10	13	
10 & 20...	8	12	19	11	
20 & 30...	25	26	34	28	
30 & 40...	48	20	29	44	
Betw. 40 & 50...	48	26	46	46	
50 & 60...	46	33	36	47	
60 & 70...	55	35	50	47	
70 & 80...	60	28	34	30	
80 & 90...	20	16	19	12	
90 & 100...	5	2	1	2	
Small Pox....	12	5	12	8	Total..37
Measles............	6		8	17	Total [illegible]

The continuance of frost during the greater part of this interval has been remarkable, ith frequent but moderate falls of snow, and the wind from the north, north-east, and st, twenty-two days. For several days, at the latter end of this period, the atmosphere as obscured by a hazy, undefined cloudiness. The cold, though not so intense as in e preceding interval, was often of that peculiar quality, which is infinitely more painful the feelings, and, possibly, more injurious to health, than that greater degree of intensy, unaccompanied by this property of suddenly abstracting caloric.

The great mortality which the last Monthly Report exhibited is in this considerably diminished. Children under two years of age have been mostly, and fatally, ected, by the continued low degree of temperature which singularly marks the period. tarrhal complaints have been very rife; and all affections of the pulmonary organs ve been fully as frequent and severe. This unusually protracted winter, which, though may have been equalled in the intensity of cold, yet has never been surpassed in duion, has, it is feared, sown the seeds in many delicate constitutions that will ere long fold the germ of disease. Catarrh, Pneumonia, Hæmoptoe are the sure harbingers of thisis, which already in this Report presents evidence of what may be expected in se that will follow. Of the mortality from Phthisis, no register is a faithful record: , excepting when poverty keeps the unhappy victims at home, the hope which change place inspires in the friends takes the patient from the sphere of London before death ses the scene. No epidemic at present prevails, unless Catarrh may be deemed so

except Pertussis, which is very general in eight out of the eleven districts. One case of Phthisis in an Officer was remarkable, from his evidently getting better during the very severe weather, but rapidly sinking immediately that it became more mild.

The cases of Cephalea were very severe, the paroxysms returning with the greatest regularity twice in the twenty-four hours. In one of them, the pain was always preceded by rigors; but in the other no well marked rigor had been perceptible at any period of the disease. In both cases, after the bowels were cleared by purges containing calomel and the antimonial powder, the bark was freely exhibited, with the best effects. This species of Rheumatism does not appear to be so much affected by severe cold, as by moist weather. In one of the patients, after the symptoms had disappeared for a few days, they again presented themselves, from having been exposed to a damp atmosphere, although of a much higher temperature than that which had previously existed.

The case of Cystitis occurred in a woman after a tedious labour; she complained of pain about the region of the bladder, obstinate constipation of the bowels, and continual stillicidum urinæ. Temporary relief was afforded her; but she suddenly fell, and expired, in the act of crossing a room. On examining the body, the kidneys were found much enlarged, and they were gorged with blood. The coats of the bladder were exceedingly thickened, and so contracted that its cavity would not contain more than an ounce; and this was entirely filled with a gravelly substance, which she had voided with her urine in her lifetime. Two of the four cases of Cynanche Trachealis were of that species termed spasmodic. To the first, an infant of seven months, the spasm came gradually, two or three times in a day for a fortnight; at length, it recurred so frequently, and with such increased violence, that the child sunk under it. The other child, one year old, is subject to this affection when it awakes, and after drinking; at intervals, the breathing is perfectly free. But the spasms are increasing in frequency.—The death reported in our last from Croup, ought rather to have been ascribed to Cynanche Laryngea, of which it was most probably an instance. The subject was a female servant, aged 26. She had been overheated in cooking a large dinner. While in that state, she drank a draught of very cold water. The following day she complained of her throat; but no advice was sought, and the next she was removed to a relation's. A neighbouring practitioner was sent for, who found there was inflammation of the glottis and tonsils; that most violent efforts were made to breathe; accompanied with a stridulous noise, a total inability to swallow, with considerable pyrexia, and an incessant restlessness. It was too late to administer any relief; and she speedily expired. Examination after death was not permitted.

As our attention is drawn to Cynanche Trachealis, it is a fit occasion to notice a remark of a contemporary Journalist, who attempted to impeach the credit of our Register, because it reported *six* cases of that disease without a death; and stating, from his experience and opinion, that one case in four of Croup proved fatal. In twenty cases of genuine Croup (we exclude the two spasmodic cases, and the one just quoted), which we have reported since December, not one death took place. We will venture to assert, that one in twenty is a full average of deaths from Croup in the general practice of London. This difference may be reconciled without impugning either the veracity or skill of the commentator: for in a disease so acute, it will be allowed that the success of the treatment will depend, not on the fitness of the remedies prescribed only, but also on the earliness of their employment after the first symptoms are discovered. In this particular, the General Practioner has, most commonly, a decided advantage over the Physician; and hence a successful termination will be more frequent with him in actual practice. In one of the cases of Cynanche Parotidea, a sudden subsidence of the swelling took place on the third day. Convulsions supervened; and

subsequently many of the symptoms usually attendant on Hydrocephalus: notwithstanding the most active treatment was adopted from the commencement of these formidable symptoms, the child died on the sixth day. No opportunity was afforded for dissection. The child was just one year old, and was always a fine healthy infant. The case of Fungus Hæmatodes is in a child seven months old: it is situated behind the right clavicle. One of the cases of Hydrocephalus was in a child, three years old. On the first day of its being seen (the 12th ult.), the patient was cupped on the nape of the neck and the temples; this was repeated the next day; a grain of calomel was ordered every two hours, with mercurial inunction; the head was shaved, and cooling lotions and snow in bladders were constantly applied to it. On the 20th the child was perfectly sensible, and could not bear the approach of a candle to its eyes. Three of the cases of Hydrocephalus, noticed in the first district, are in children of one family: they are at the same time labouring under Pertussis. They are under the care of a respectable physician, and we are assured two appear to be recovering; but of the other little hope is entertained. Most of the cases of Scarlatina were very mild.

The cases of Ischuria are the Ischuria urethralis; two of which are in the female, and evidently arising from an altered state of the urethra, by which its dilatability is so much impaired, as to resist the contractile power of the detrusa urinæ. They are relieved by the bougie, and will probably, by a due perseverance in the use of that instrument, be entirely cured.

The subject of Tic Doloreux was a female, married, and about 30 years of age. She had been brought to bed about five weeks; and suckled her child, which was in good health. The disease attacked the right side of her face; the pain was extreme, and had troubled her for several months. By clearing the primæ viæ by an emetic and a dose of calomel, followed by Fowler's solution of Arsenic, in eight minim doses three times a day, she was perfectly cured.

Monthly Prices of Substances *employed in* Pharmacy.

(H signifies higher in price; L lower, since the last Report.)

		S.	D.
Acaciæ Gummi elect.	lb.	4	0H
Acidum Citricum		28	0
—— Benzoicum	unc.	6	6H
—— Sulphuricum	P. lb.	0	7
—— Muriaticum		1	0
—— Nitricum		2	6
—— Aceticum	cong.	4	6
Alcohol	M. lb.	5	0
Æther sulphuricus		10	6
—— rectificatus		12	0
Ærugo	lb.	7	0
Aloes spicatæ extractum		6	0
— vulgaris extractum		4	9
Althææ Radix		1	3H
Alumen		0	5
Ammoniæ Murias		3	0H
———— Carbonas		3	0
Amygdala dulcis		5	9
Ammoniacum (Gutt.)		7	6H
——— (Commun.)		3	6
Anthemidis Flores		2	3
Antimonii oxydum			
—— sulphuretum		1	0
Antimonium Tartarizatum		5	6
Arsenici Oxydum		1	0
Assafoetida Gummi-resina		7	6
Aurantii Cortex		3	6
Argenti Nitras	unc.	6	9
Balsamum Peruvianum	lb.	24	0
—— Tolutanum		18	0H
Benzoinum elect.		12	0
Calamina præparata		0	4
Calumbæ Radix		3	0
Cambogia		9	6
Camphora		10	0
Canellæ Cortex		3	6

		S.	D.
Cardamomi Semina opt.	lb.	14	6H
Cascarillæ Cortex		6	6
Castoreum	unc.	4	6
Catechu Extractum	lb.	2	4
Cetaceum		3	0
Cera alba		4	0H
—— flava		3	6H
Cinchonæ cordifoliæ Cortex (yellow)		8	6
—— lancifoliæ Cortex (quilled)		10	6
—— oblongifoliæ Cortex (red)		16	0
Cinnamomi Cortex		16	0
Coccus (Coccinella)	unc.	4	6
Colocynthidis Pulpæ	M.	8	0
Copaiba		7	6
Colchici Radix		3	6
Croci stigmata	unc.	4	6H
Cupri sulphas	lb.	1	0
Cuprum ammoniatum		12	0
Cuspariæ Cortex		4	0
Confectio aromatica		10	0
—— Aurantii		3	6H
—— Opii		6	0H
—— Rosæ Caninæ		2	1H
—— Rosæ Gallicæ		2	6H
—— Sennæ		1	8
Emplastrum Lyttæ		7	6
——— Hydrargyri		3	0
Extractum Cinchonæ	unc.	5	0
——— Cinchonæ resinos.		4	6
——— Colocynthidis		2	6
——— Colocynthidis comp.		1	6H
——— Conii		0	6
——— Gentianæ		0	6
——— Glycyrrhizæ	lb.	5	6
——— Hæmatoxyli	unc.	0	6
——— Humuli		0	6

		S.	D.
Extractum Hyosciami	unc.	1	0
— Jalapæ 2s. 0d.	Res.	3	6H
— Opii		3	6
— Papaveris		1	0H
— Rhæi		2	6
— Sarsaparillæ		1	0
— Taraxaci		0	6
Ferri carbonas	lb.	0	9
— sulphas		1	3
Ferrum ammoniatum		4	0
— tartarizatum		4	6
Galbani Gum-resin.		8	0
Gentianæ Radix		1	0
Guaiaci Resina		6	6H
Hydrargyrus purificatus		6	0H
Hydrargyri Oxymurias	unc.	0	8
— Submurias		0	9
— Nitrico-Oxydum		0	8
— Oxydum Cinereum		1	4
— Oxydum rubrum		5	6H
Hydrargyrus præcipitatus albus		0	9
Hydrargyri Sulphuretum rubrum		0	8
Hellebori nigri Radix	lb.	3	0
Ipecacuanhæ Radix		26	0
— Pulvis		27	0
Jalapæ Radix		6	3
— Pulvis		7	0
Kino		16	0
Liquor Plumbi Acetatis	M. lb.	1	4
— Ammoniæ		1	6
Linimentum Camphoræ comp.		6	0
Lichen Islandicus	lb.	1	10
Lyttæ		15	0
Magnesia		9	0
Magnesiæ Carbonas		2	6
— Sulphas		1	4
Manna optima		9	0
— communis		6	0
Moschus pod, 24s.	in gr. unc.	36	0
Mastiche	lb.	5	6
Myristicæ Nuclei		26	0
Myrrha elect.		7	0
Olibanum		3	0
Opoponax		26	0
Opium (Turkey)		36	0H
Opium (East India)		34	0
Oleum Amygdale	lb.	5	6
— Anisi	unc.	2	9
— Anthemidis		6	0
— Cinnamomi Cassia		8	0
— Caryophilli		6	0
— Cajuputi		6	6
— Carui		1	9
— Juniperi		4	0
— Lavendulæ		4	0
— Lini	cong.	9	0
— Menthæ piperitæ	unc.	4	6
— — viridis		2	0
— Olivæ	cong.	35	0
— Olivæ secundum		21	0
— Pimentæ	unc.	5	0
— Ricini optim.	(per bottle)	10	6
— Rosmarini	unc.	0	9
— Succini 2s. 4d. —	rect.	4	0
— Sulphuratum	M. lb.	1	6
— Terebinthinæ		2	3
— — rectificatam		2	9
Papaveris Capsulæ	(per 100)	3	0H

		S.	D.
Plumbi Carbonas	lb.	0	8
— Superacetas		2	6H
— Oxydum semi-vitreum		0	8
Potassa Fusa	unc.	0	9
— cum Calce		0	6
Potassæ Nitras	lb.	1	0
— Acetas		8	0
— Carbonas		1	6
— Supercarbonas		4	0
— Sulphas		1	0
— Sulphuretum		2	0
— Supersulphas		0	6
— Tartras		3	0
— Supertartras		2	0
Pilulæ Hydrargyri	unc.	0	9
Pulvis Antimonialis		0	8
Resina Flava	lb.	0	5
Rhæi Radix (Russia)		30	0
— (East India)		12	0
Rosæ Folia		12	0H
Sapo (Spanish)		2	6
Sarsaparilla Radix		6	0
Scammoneæ Gum-Resina	unc.	2	6
Scillæ Radix siccat	lb.	5	6
Senegæ Radix		3	6
Sennæ Folia		6	6
Serpentariæ Radix		21	0L
Simaroubæ Cortex		4	6
Sodæ Boras		5	0H
— Sulphas		0	9
— Carbonas		7	0
— Subcarbonas		1	6
— — exsiccata		4	0
Soda tartarizata		3	0H
Spongia usta		24	0
Spiritus Ammoniæ	M. lb.	4	0
— — aromaticus		4	0
— — fœtidus		4	0
— — succinatus		5	0
— Cinnamomi		2	8
— Lavendulæ		4	6
— Myristicæ		3	6
— Pimentæ		3	6H
— Rosmarini		4	0
— Ætheris Aromaticus		5	6
— — Compositus		5	6
— — Nitrici		4	0
— — Sulphurici		6	6
— Vini rectificatus	cong.	28	0
Syrupus Papaveris	lb.	2	0
Sulphur		0	3
— Sublimatum		0	8H
— Lotum		1	0
— Præcipitatum		1	0
Tamarindus opt.		2	6
Terebinthina Vulgaris		0	10
Terebinthina Canadensis		5	6
Terebinthina Chia		7	6
Tragacantha Gummi		10	6
Valerianæ Radix		1	10
Veratri Radix		1	6
Unguentum Hydrargyri-fortius		5	6
— — Nitratis		2	8
— — Nitrico-oxy.		3	0
Uvæ Ursi Folia		2	6
Zinci Oxydum		5	6
— Sulphas purif.		2	6
Zingiberis Radix opt.		2	6

Prices of New Phials per Gross.——8 oz. 70*s* —6 oz. 58*s*.—4 oz. 47*s*.—3 oz. 43*s*.—2 oz. and 1½ oz. 36*s*.—1 oz. 30*s*.—half oz. 24*s*.——The London Glassmen allow 10 per Cent, ready money.——The Manufacturers in the Country, where all Phials are made, allow 27½ discount, at three months credit, (carriage free,) to London.

Prices of second-hand Phials, cleaned, and sorted.——8 oz. 46*s*.—6 oz. 44*s*.—4 oz. 33*s*.—3 oz. 30*s*.—2 oz. and all below this size, 24*s*.—Three months credit.

Hirudines, 12*s*. per dozen at Covent Garden Market.——Foreign Leeches not being in general to be depended on, their prices are omitted.

INDEX INDICATORIUS.

The Editors are fully convinced that the motives of I. G. X. *are pure and laudable, yet he must excuse their inserting his Remarks. They are influenced to this decision by no prejudice, and are fully aware that the subject is still capable of receiving important elucidations; but cannot admit bare assertions from any quarter, however respectable, when proofs alone ought to be received as evidence tending to invalidate a generally acknowledged beneficial practice. As a test of impartiality, the Editors refer to their observations on the Diseases of last month (p. 273). If* I. G. X. *will circumstanti-*

ally detail the cases, to which he alludes as having happened in his, and in the practice of his medical friends of Lynn, they shall be faithfully recorded in the Repository.

The fact communicated by Cambro-chirurgus *is another proof how dangerous it is to society that persons should be permitted (and in this enlightened country how extraordinary!) either to dispense or sell drugs, with the doses and properties of which they are entirely unacquainted. The Wrexham Druggist, who confessed, that because "his stock of corrosive sublimate was low, he had mixed white arsenic with it to make it hold out," in this instance was evidently ignorant of the different qualities of the two articles. The practice of the Continental Druggists, on which we remarked (p. 130), was clearly not ignorance, but villany. Though we have not inserted our Friend's Letter, yet we thus notice the information, and may have other occasion for its use. We cordially thank him for the interest he has taken in our concerns.*

Several of our Correspondents have requested that we would regularly report the Lectures delivered at the College of Surgeons. We are fully impressed with their importance, and the instruction they are calculated to convey. But, with the most ardent wishes to make our pages the Repository *of scientific information and of every novelty in medicine worthy of being preserved, yet we must decline taking advantage of the publicity of such Lectures to give them a place. Possibly our Reporter might be incapable of rendering them due justice; and it might prove, by anticipation, the means of injuring the Lecturers, whose labours and whose talents deserve the approbation and support of every member of the Faculty.* R. M. *we are certain will be satisfied with these reasons.*

Professor Carlisle's *Fourth Paper on Cathartics,* Dr. H. Robertson's *Memoir,* Dr. Plenderleath's, *and the favours of our other numerous Correspondents, will have the earliest possible attention. It is with extreme regret we have been obliged to postpone publishing* Dr. Mills's *List of Cases occurring in his practice in Dublin, which the Printer has unfortunately mislaid.*

We shall at all times rejoice when our contemporaries find matter in the Repository *that may be useful, and worthy their adoption; even though they do not acknowledge the source whence they derive it. Neither is it our intention to notice such plagiarisms, except when, from error or misrepresentation, they may lead to wrong conclusions. The List of Diseases now published in one of the Journals, and quoted as being collected by* certain Apothecaries *as the* average *of the Diseases of London, but which is taken from our Register of the preceding month, is not given by us as an* average; *nor is it, in fact, a monthly average, probably, by many thousand cases.*

The Foreign Book, the loan of which has been kindly conferred upon us by Mr. Blount *of Birmingham, has been received; and we trust this example will be followed by those Friends, who may possess any thing curious or new in the Sciences coming within our Department.*

We have to acknowledge with the utmost respect the Letters from the Royal Institution, the Linnæan Society, and the Medical and Chirurgical Society. It is no more the desire of the Editors to force the Repository *on the notice of the Public by meretricious puffing, than to attempt its support, by detracting from the merits of contemporary Journals; but it would manifest a great want of regard to the feelings of those who so warmly espouse its cause, as well as of ingratitude to the Learned Body of the Sister Kingdom, from whom it came, were they to withhold the following Letter.*

"Royal College of Surgeons in Ireland.

"Gentlemen, *Dublin, March 7, 1814.*

"I am instructed by the Court of Examiners of this College to acknowledge the receipt of the First Number of the London Medical, Surgical, and Pharmaceutical Repository, &c. and to return you their thanks for the same. The plan of the Work appears to the Court to be well conceived, and they have no doubt of its being ably conducted. Several of the Members of the College have expressed their intention of enrolling themselves as Subscribers.

"I have the honour to be, Gentlemen, your most obedient Servant,

"The Editors of the London Repository, &c. C. H. TODD, Assist.-Sec."

The Memoir of Medical Reform has been returned agreeably to the direction received.